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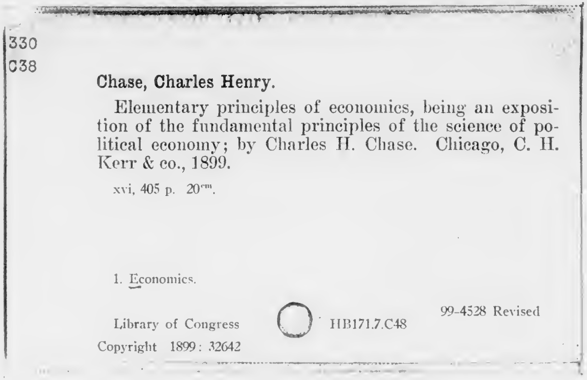

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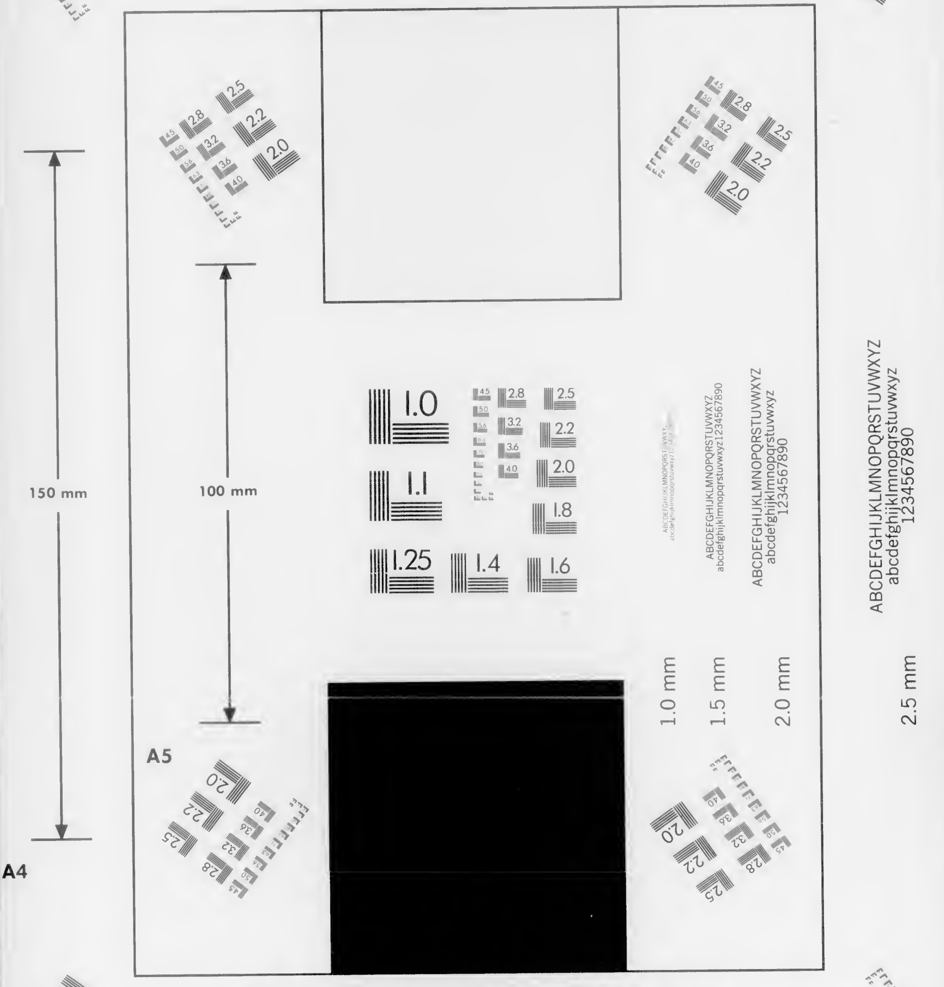
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ELEMENTARY PRINCIPLES

OF

ECONOMICS

Being an Exposition of the Fundamental
Principles of the Science of
Political Economy

BY

CHARLES H. CHASE

Chicago
CHARLES H. KERR AND COMPANY
56 Fifth Avenue
1899

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By Charles H. Chase

TO

THE YOUTH OF THE UNITED STATES

OF AMERICA,

On whose thorough understanding of the problems of industry,
and society generally, must depend the weal
or woe of the republic; whose education must determine
whether the hands of the dial of progress shall move forward
or backward; who must be held responsible, in a large
measure, for shaping the destiny of nations and
for the welfare of future generations,

THIS BOOK IS DEDICATED,

with sincere regards of

THE AUTHOR.

M. H. 31 Mar 1920

285857

PREFACE.

THIS work is presented to the public in the hope that it will prove to be the beginning of a *science* of political economy. Many valuable and pretentious works have been written, and I have great respect for the works of Smith, Mill, Ricardo, Bastiat, and our own Henry C. Carey, with many others who have done pioneer work in attempting to found one of the greatest, if not the greatest, of the sciences, — yet, for the most part, they have failed to lay a solid foundation for the science in an adequate nomenclature with exact definitions, in the clear and definite statement of the object of economics, or political economy, and in the formulation and statement of the fundamental propositions. They have generally failed in analysis and in comprehensiveness of view in tracing causation; their reasoning being frequently from incomplete inductions, from false assumptions, or in the use of terms with different significations in different propositions, and being therefore fallacious. And, finally, the most serious error, and the one of which the great majority of economists are guilty, is that of losing sight of the true object of the science; viz., "the investigation of the causes of material prosperity." Instead of considering the object generally, and in all its applications, many consider it only as to aggregates of wealth, losing sight of the individual welfare; or they may consider it merely in its application to the individual or a class of individuals, thus losing sight of the general application.

There are other criticisms which might be made on existing systems of political economy, such as faulty classification and partition of the subject, lack of proper co-ordination and subordination of causes and means, and the omission of many important means and factors. It is no wonder that political economy has been called "the dismal science," when such monstrosities as the "economic man" (the personification of selfishness) are placed before the reader as the best conception that economics can give of the primary unit of the business and industrial world; when such gross fallacies as "laissez faire," the "wage-fund theory," the "diminishing return of land," and Malthusianism pass current as settled principles of science. The argumentation of the great mass of so-called political economy is quite as irrelevant and fruitless as the discussion of the medieval question as to "how many devils can dance on the point of a needle."

The author does not flatter himself in the belief that he has proposed a perfect system, or one free from faults; but merely that he has attempted a departure in the right direction, which he hopes will mark the beginning of a *science*.

No bibliography is given in this work, and few references, for two principal reasons: First, they would be out of place in a small work designed for general reading and for students in our schools; second, I believe it best for the reader who has not made any considerable investigation along the lines of economics, to read this book without collateral reading in works which I believe are to a considerable degree misleading.

The author is well aware that the foregoing general

and sweeping criticism of other works will be taken as an invitation and provocation which will bring on this work the severest criticism from all sides; but for this he is prepared, and he hopes to profit in future editions of the work by such criticisms as he may find to be just.

In method the work is deductive and *a priori* rather than inductive, historical, and *a posteriori*. This method presupposes the historical; and, indeed, it could be of but little value, unless there were a fund of historical facts upon which to found the general notions and principles of the science. But, it is believed, the reasoning of the work, for the most part, is based on inductions generally accepted, and of the truth of which there is no doubt. In accordance with this method, and to keep the work within the limits of a small volume, historical and statistical matter have been omitted.

A nomenclature has been adopted somewhat different from that of other authors; yet this departure seemed necessary, from the fact that the author did not regard any in use as sufficiently extensive and exact. It will not, however, prove a hindrance in understanding the work, since most of the terms are self-explanatory.

It may appear from a superficial examination of the work that there is a repetition of subject-matter in Books II and III; but it will appear from a closer examination that the point of view taken in Exchange is quite different from that taken in Distribution. Consequently, certain subjects, as Transportation, Credit, and Money, have required different treatment, according as we have in view their function and actual operation in effecting exchanges, or the same factors in their application to the distribution of wealth. In Book II, the various theories of money are given, and their merits stated as claimed by their respective advocates, incidentally showing the evils of a money fluctuating in purchasing power. In Book III, the fluctuation of the value of money, the variability of the standard, is treated as a factor of inequitable distribution of wealth; here, therefore, the point of view is the effect of money upon the distribution of wealth, and through distribution, on the general welfare. So, likewise, of Transportation and Credit; their treatment is varied according as they are regarded as modes or means in production, exchange, or distribution of wealth.

In Book V, little more has been attempted than to place before the student the problems to be solved in effecting equitable distribution of wealth. The suggestions made in this book will certainly provoke adverse criticism on the ground that they are socialistic; but if they stimulate the popular mind to more thoughtful and energetic investigation of the problems of distribution of wealth, the author will be satisfied.

As to the proportion of work, greater space is given to those subjects which are, in the present state of civilization, most prolific of causes affecting human welfare disastrously,—to subjects in which there is a present failure to solve the questions involved correctly, and to the correct solution of which questions the selfish nature of man is a hindrance.

All the human powers and faculties are directed to the correct solution of the problems of production, so that the greatest results may be produced with the

least expenditure or energy. Technical works on the arts, trades, and industries go into this department of political economy in detail; but it has been thought necessary in this work only to make such analyses, and lay down such principles of production as will be a logical introduction to the books which follow.

Likewise, in exchange there is no incentive for a wrong solution of its problems; and, therefore, an outline, merely, of the modes, means, and laws is deemed sufficient for the next logical step toward *distribution.* In this book considerable space is devoted to the outline of the theories of money, since it, under present conditions of society and industry in this country, has become the greatest engine for perpetuating and increasing the inequitable distribution of wealth.

The greatest space has been given to *distribution,* because here are to be found the great problems of economics. The selfishness of man here steps in to prevent the equitable distribution of the rewards of labor. There is here no concert of human powers to effect the right solution of the problems of distribution. Here it is important to point out the modes and causes of inequitable distribution, and when once seen clearly, the inventive genius of man will provide the remedies for the general good. In this book also, considerable space is devoted to money as a means of inequitable distribution; since it is believed that the establishment of a perfect system of money would deprive the greedy and wealthy few of their greatest engine of extortion and oppression.

Consumption is disposed of briefly, for logical completeness, since there are no problems in this field which will not be solved easily and correctly by the voluntary action of men, when other evils are removed.

Book V is deserving of more space; but little could be accomplished in this direction, in a small work, more than to point out lines in which desired reforms and remedies are to be sought, many of them being of sufficient importance to require a separate treatise. Book V, therefore, could be made little more than an introduction to a field where volumes may, and doubtless will, be written.

SUGGESTIONS TO THE READER.

Appreciating the fact that this book will come into the hands of widely different classes of readers, the author would offer a few suggestions to those into whose hands it may fall.

First, to the general reader he would say: —

It is not necessary for you to read all the work in order to gain a fair knowledge of the main subjects treated. The Introduction and a considerable portion of Book I on Production may be omitted without seriously hindering the acquirement of a correct understanding of the books which follow. In this part of the work there are many new terms. They are not without their use in a text-book, which should have a foundation on a system of terms accurately defined, and principles accurately stated; but your loss will not be great, if you omit these preliminary portions and give your attention to the careful reading of Books II, III, IV, and V. Book III contains the most important

matter; but Books II and V also contain discussions which can not fail to be of great assistance in enabling you to grapple with the problems of political economy.

Again, to the teacher the author would say: —

This work has been prepared with the object of reaching all classes of society — or as nearly so as may be practicable, preserving the logical completeness and coherence of the work. Its use in the schoolroom, it is believed, may be made highly successful. The work is not partisan, except by a partisanship of truth against error and right against wrong. While no lists of questions have been prepared, the "side heads" in bold-face type will guide you in following the texts and in framing questions. The synopses and classifications will also be invaluable to you in getting a comprehensive view of the subject in hand, and as a means of testing the pupil's knowledge of the subject. An index at the close of the work will enable you to turn to any subject treated without the loss of time which would be otherwise necessitated in leafing through the text.

And, finally, a few words will be directed to the student: —

Begin this work as you would your arithmetic, by a thorough mastery of the fundamentals in the Introduction and in Book I. A thorough mastery of this work will prepare you for a critical reading of any other on the subject — will enable you to sift the grains of truth from the great mass of chaff which has been offered to the reading public under the label of "political economy." Historical and statistical matter has been omitted that you may the more easily master the fundamentals. In your future reading you can verify the principles elaborated in this work by an application of them to the economic history of this and other countries. You can also apply them to the "art of economics" in solving the great social and economic questions which are now, and in future will be, presented for practical solution.

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ELEMENTARY PRINCIPLES
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ECONOMICS

INTRODUCTION

FUNDAMENTALS OF THE SCIENCE

CHAPTER I.

PRELIMINARY.

ECONOMICS is that department of Philosophy which has for its object the investigation of the causes of *material prosperity*. It is a *science* in so far as its terminology is exact, its classification systematic, and its laws[1] determinate. It is an *art*; since it attempts, in accordance with determined laws, the direction and combination of causes for the production of the highest material prosperity.

Material Prosperity may be defined as such conditions and states of subsistence, comfort, luxury, and happiness of man as are dependent on his possession and use of the material objects of desire.

---

[1] See note at the end of Chapter IV of Introduction.

Economics is closely related to other sciences and arts. It takes their results as unquestioned facts, and considers them apart from all relations, except those to material prosperity. To illustrate: It may consider natural forces and mechanical contrivances as instruments in forwarding material prosperity, but can enter no investigation of principles and laws of physics or mechanics; it may trace the effect of legislation in promoting or retarding material prosperity, but can not discuss the constitutionality of laws, or trace them to their foundation in rights; it may show how material prosperity is affected by intellectual powers and morals, but the questions involved in psychics and ethics are beyond its province.

CHAPTER II.

FUNDAMENTAL FACTS AND RELATIONS.

THE fundamental facts and relations which lie at the basis of the science of economics may be distributed to three classes of essentials, as follows: Subjective Essentials, Objective Essentials, and Relative Essentials.

1. Subjective Essentials, or Wants. — During man's whole existence in the world his being reaches out for things beyond self, and for conditions and states different from those already attained. These reachings forth of his nature are properly designated *wants.*

a. Physical Wants.— First in order, and the most imperative of man's wants, are those demands of his nature for food, drink, clothing, and all things necessary to his continued individual existence. These wants he possesses in common with the whole organic world.

b. Physiopsychical Wants.— Those in the second order of wants are of such a character that they can not be separated from either the mental or physical organism, but are, in varying degrees, dependent on both. These wants man possesses in common with animals.

(I.) *Sensual.*— Of the physiopsychical, those most nearly related to the physical, are such wants as find satisfaction in gratifying the senses.[1] While these wants are necessarily connected with a mental organism, yet the mind, during their gratification, manifests but the lowest degree of activity.

(2.) *Æsthetical.*— Further removed from the physical are those wants which find satisfaction in music, the beauties of nature and art. They are properly termed æsthetical, and are, perhaps, about equally mental and physical, as to the activities displayed in their satisfaction.

(3.) *Social.*— A third species of the physiopsychical wants consists of those which find expression in the desire for companionship and social intercourse. They are properly termed social, and are closely related to the higher psychical wants.

c. Psychical Wants.— The third and highest order of wants includes all those which find satisfaction in the activity of the soul as directed by volition. They may be expressed in the contemplation of its own being, states, and relations. They are called psychical (pertaining to the soul), since they are purely of the soul and farthest removed from the physical nature of man.

(1.) *Intellectual.*— The first species of the psychical wants includes all desires for knowledge, and their satisfaction is in the directed exercise of the knowing and reasoning faculties. They are the wants of the intellect, and are properly termed intellectual.

---

[1] In eating or drinking to satisfy the pangs of hunger or thirst, we may be said to satisfy a physical want; but the eating or drinking of an epicure to satisfy the sense of taste or for the exhilaration of the potion, is to satisfy a sensual physiopsychical want.

(2.) *Moral.*— The second and higher species of psychical wants includes all desires for the triumph of right, truth, justice, and all virtues. They are the springs of action which lead to all that is patriotic, philanthropic, and magnanimous. These wants are properly termed moral, since they arise in the moral nature of man.

2. Objective Essentials, or Objects.— Every want in the individual has its counterpart in the objective world, whether that counterpart be a material thing or an immaterial essence, state, or relation; it is the object capable of satisfying wants.

a. Material Objects.— Material objects are capable of satisfying physical wants; and material objects in particular states and relations, in conjunction with mental activity as a subjective reaction, are capable of satisfying physiopsychical wants.

b. Immaterial Objects.— Objects which are capable of satisfying psychical wants are immaterial objects, and comprise such entities, states, and relations as are susceptible of discovery, analysis, synthesis, and comparison, and all such as may be contemplated as causal or successive in time or space. The immaterial object may be an attribute or emanation of a material thing, and the senses may be the media of communication of knowledge; but the material thing itself can not satisfy the psychical want — it is satisfied only in the contemplation of the attribute, state, or relation.

3. Relative Essentials — Interactions.— There are, besides the subjective and objective facts of existence, certain relations between the individual and the objective world, which relations, though accidental[1] to man's existence, are essential to the science of economics. They are the relations of *correspondence*, *separation*, and *proximity;* and they lead to interactions between subject and object.

a. Objective Affinity, Limiting Interactions.—The first of these relations between individual and object is such that interactions take place between the individual and such objects only as have a correspondence to his wants, or such as intervene between him and the satisfaction of these wants. This relation is termed *Objective Affinity.* It excludes from economic consideration all objects which do not, either as means or end, possess some power of satisfying wants.

b. Objective Elusion, Leading to Effort.—Objects of desire have varying degrees of separation from the individual. This *Objective Elusion* necessitates, on the part of the individual, the putting forth of effort to attain and possess the object of desire. This relation excludes from economic consideration all objects which man possesses and enjoys at the cost of no effort or labor.

c. Objective Apprehension, Leading to Satisfaction.— The third relation, that of *proximity* of the object of desire, is one which renders possible apprehension of the object by the individual, or some individual, and leads to satisfactions. The relation of *Objective Apprehension* excludes from economic consideration all those objects which lie beyond the range of human powers, whether physical or mental.

---

[1] It may be necessary to remark that we might suppose man to be placed in the world with wants as now, but without the power of satisfying these wants by any effort which he might put forth — with the objective world just beyond his reach. On the other hand, we might suppose him to have been so related to the objective world that all his wants are satisfied without effort on his part,— no sooner is the want felt than the satisfaction follows spontaneously. Were either of these relations to exist, it would evidently render a science of economics impossible.

CHAPTER III.

FUNDAMENTAL PROPOSITIONS.

THERE are two classes of propositions which are, as in other sciences, fundamental to the science of economics; viz., *definitions* and *axioms*.

Definitions are arbitrary and conventional; yet they should be exact, that the propositions of scientific discussion may be clear and unambiguous. Terms in common use have varied meanings in different contexts, and often convey different ideas to different minds when used in the same context. They are, therefore, unsuited to scientific discussion, unless limited and fixed in signification by exact definition.

Axioms and postulates are self-evident propositions, or such as need only to be understood to be accepted. The axioms are intuitional, the mind grasping them without the mediation of the reasoning powers. The postulates, here included under the term axioms, are not necessary truths, since the mind can conceive of the possible truth of their contradictories; but they are readily granted by most minds as soon as apprehended.

SECTION I.

DEFINITIONS AND CLASSIFICATIONS.

Utility. — The utility of an object is its power of satisfying wants. The term "utility" is used in two senses: in the abstract to represent the attribute, and

in the concrete — both general and particular — to distinguish objects possessing the attribute. The context will determine the sense intended. While the relation of objective affinity is one between subject and object, such that both are held in view, it is convenient to consider, apart from the individual, the object's power of satisfying wants — the objective side of the relation. This objective side we term utility. The separation of the objective attribute from all subjective relations and variations makes utility an invariable attribute. To illustrate: A scientific instrument could not satisfy the wants of a savage in the same way or degree that it would those of a scientist. Food of certain kinds satisfies wants differently — varying with the individual; for what is nourishment to one may be so in greater or less degree to another. But, considering the objective side only of this relation, we say the same instrument possesses always and everywhere the same utility, though the individual may not be able to place himself in such relation as to apprehend it; a bushel of wheat possesses always and everywhere the same utility, though the peculiar subjective states or conditions of one individual may render wheat less nourishing to him than to another.

Value. — The value of an object or service is its power in exchange for other services or objects of desire. The use of the term "value" is principally abstract, though it may be used as a particular concrete, the general concrete being represented by the term "wealth."

While utility, as the objective side of a relation, is fixed invariably in the properties of an object, which makes it capable of satisfying wants, value attaches to the object, because of certain relations which the object bears to other objects, and because of the relations which it bears to man individually and collectively. Value also varies with these relations.

Value is said to vary according to the *law of supply and demand.* While this law as generally stated and commonly understood may be satisfactory to the superficial student of economics, it affords no clue to the elements of variability and limiting conditions of the complex notion, value.

The analysis of value, and the determination of its law, will be considered in its appropriate place; but we may anticipate the subject here to remark that value is dependent on five essential conditions, as elements, viz.: the urgency of desire for the object; the number of individuals desiring it; the labor required for its present production; the time that must elapse before a new supply can be produced; and, finally, the present abundance, or supply "in sight."

While it will be convenient to use the expression, "supply and demand," as an abbreviated statement of the law of value, when we do not wish to be specific in referring the law to its elementary factors, still it will always be used as an expression involving, as will hereafter appear, the mathematical relations of value in the five elements or conditions above mentioned.

Wealth.— Wealth is a general concrete term which is used to designate whatever possesses value or power in exchange, except labor, which is an agent in the production of utilities and wealth, but is properly distinguished from them, though having power in exchange.

I. CLASSIFICATION WITH REFERENCE TO SOURCE AND CHARACTER.

With reference to the source and character of wealth, we divide it into two classes; viz., *Ops Potentia*, or potential wealth,[1] and *Ops de Facto*, or actual wealth.

1. Ops Potentia, or Potential Wealth.— Certain forms of wealth have, as to command of other values, a power residing, not in the labor required to produce the wealth, or in its own power to satisfy wants, but principally in law, which grants control over the thing, in a monopoly, which enforces control, and in law, which enforces contracts. Such wealth is not actual,— does not directly satisfy wants, — but has power to command actual wealth, and is termed *potential wealth.*

a. Land.— Land, the free gift of nature, as air and water, acquires value when held in private control, according to the location, the uses to which it is put, density of population, number and importance of neighboring industries, and the number and proximity of similar sites. We shall include under "land" all lands held in private control, for whatever uses it may be put; as, agriculture; sites for residence, manufacturing, professional, literary, and other employments; mining lands; rights of way of railroads, telegraphs, and telephones; also lakes and other waters held as private property. We must exclude, however, all appendages, or improvements to land produced by labor.

---

[1] There seems to be no sufficient reason for limiting the term "wealth" to such objects as possess actual value as distinguished from potential values, those which can command values, as evidences of debt and patents; and since there is no unanimity among writers on political economy as to the proper definition, it is perhaps preferable to avoid confusion, and use the term in its widest sense, including all things which can command value, except services, or human effort as labor.

b. Evidences of Debt.— In the second division of potential wealth are included all *evidences of debt;* as, notes, bonds, mortgages, certificates of deposit, and bills of credit. Their sole potential as values lies in the promise of another to pay and the power of the law to enforce contracts.

c. Patents.— The third division of potential wealth includes all *patents* from the government for exclusive privileges. They are ordinary patents for designs, useful discoveries and inventions, and copyrights. The potential of patents as values lies in the sole right granted by the government to individuals for the control of the product of their own mental labor for a term of years; and also in the power and fidelity of governments to defend those rights. This statement presupposes a power in the patent to awaken desire — a power indirectly, of satisfying wants.

2. Ops de Facto, or Actual Wealth. — In the second class of wealth we place all those tangible things which have the power of satisfying wants, and are the product of man's labor. This labor may be mere physical effort, or it may unite with it mental effort in calling to his aid artificial devices and material forces in transmuting, transforming, and transporting material substances. Such wealth is termed *ops de facto, or actual wealth.*

a. Land Appendages. — In the first division of actual wealth are included all such land improvements and attachments as in law are regarded real property, and are bought and sold with the land. Under *land appendages* there would be included all buildings, fences, grades, drains, fruit and ornamental trees of agricultural lands, sites of residence, manufacture, or other business; buildings and wires of telegraph and telephone companies; buildings and docks of water transportation companies; and buildings, excavations, roof supports, etc., of mines.

b. Usables.— Under the term "usables" are included all those movable forms of wealth which are applied directly to the satisfaction of desires or as implements or material means in the production of other objects of desire. The term includes all utilities of value not included under land appendages and money.

c. Money.— The third division of actual wealth is *money.* As gold and silver it is a commodity; but as soon as it receives the government stamp, it acquires a power and function not possessed by commodities — that of facilitating exchanges by accurately measuring and passing values.[1]

II. A Classification with Reference to Use.

Wealth with reference to the use to which it is put, may be divided into two classes, *crescive wealth, or capital,* and *fruendive wealth, or fruendal.*

1. Cresceive Wealth, or Capital. — Wealth may be devoted to the object of producing more wealth; and so used, it is said to be *crescive wealth*, or capital. It is not essential whether the wealth be applied directly to the production of more wealth, or must first be converted into other forms by exchanges. Neither is it important that the wealth be used so as actually to produce more wealth; for the classification is with reference to the use to which the wealth is directed, and not with reference to the results of such use. All wealth not in the hands of the consumer as *fruendal* is *capital.*[1]

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[1] National and bank-notes are not money in the strict technical signification of the term, as they are included under evidences of debt, a division of potential wealth. A base coin is actual wealth only in so far as the contained metal as a commodity will command values measured by the more precious coin which is made a standard of value. A bank-note or a copper coin, however, may perform one of the functions of money — that of passing values — just as any evidence of debt may do. They are properly included under *currency.*

a. Actual Capital.— All forms of actual wealth which are devoted to production are distinguished as *actual capital.* It may consist of land appendages, commodities, or money. Its return in distribution is *profit.*

b. Tellurian Capital.—Wealth in the form of land, not land appendages, which is held for gain, is termed *tellurian capital.* Its return in distribution is *rent.*

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[1] The distinctions and limitations sometimes made with reference to capital have no use in the discussion of economic questions. If a man has $100,000 in government bonds, and wishes to go into some manufacturing enterprise, we would say, commonly speaking, that he has $100,000 capital with which to engage in business. Is it not a waste of words, a worse than useless distinction, to say that he has no capital; that he must first convert his bonds into money, and, again, his money into the necessary commodities, machinery and apparatus, before he has any capital? Again, of what scientific value is it to say that "capital which does not produce, but diminishes, is no capital; it is misapplied or wasted wealth"? Surely the mathematical sciences consider both positive and negative quantities, increments and decrements; and if we consider wealth scientifically, it ought not to be necessary to know whether a man is successful in business to know whether he has capital. With such an absurd distinction to guide us as given by some writers on economics, we shall conclude that $100,000 is capital one year, when the investment yields one per cent., and the next year, when there is a loss of one per cent., it is not capital.

Rent is commonly understood to be the return of land, including land appendages; but for the determination of equitable distribution it will be necessary to separate the part which goes to land from that commanded by the appendages.

c. Patential Capital.— Capital which consists of patents, copyrights, and other special privileges legally or otherwise acquired, is termed *patential capital.* Its return in distribution is *royalty.*

d. Credential Capital.— Capital in the form of evidences of debt is termed *credential capital.* It secures its return in distribution *as interest.*

2. Fruendive Wealth, or Fruendal. — Wealth devoted directly, or reserved for the satisfaction of desires, is fruendive wealth, or fruendal. It is the ultimate form to which other forms are but successive steps — the form for which all other forms exist.

SECTION II.

AXIOMS AND POSTULATES.

In the discussions of this work we shall premise without proof: —

1. The *mathematical axioms.* They are so familiar that their repetition here is unnecessary.
2. The *logical axioms*, as —
    - *a.* Every event has its cause, and *vice versa.*
    - *b.* Like causes produce like effects.
    - *c.* Causes are uniform in operation; *i. e.*, the same cause can not operate in one way at one time and contrarily at another.
    - *d.* Truths which are general, belonging to a whole class, may be affirmed of any particular under the class.

3. *Economic Postulates*, as —
   - *a.* Nature's gratuities are intended for man.
   - *b.* Happiness is a state worthy to be sought.
   - *c.* Utility is a good.[1]
   - *d.* Labor is irksome, and man rightly seeks to avoid it.
   - *e.* In the right to pursue wealth and happiness all men are equal.

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[1] It may be asked why the postulate is not put, "wealth is a good." In reply it is to be remarked that the goodness is not measured by value, but by utility, and wealth is a good only as measured and tested by utility.

CHAPTER IV.

ELABORATION OF THE GENERAL PROPOSITION.

THE first question which logically arises after the exposition of the fundamental relations and propositions is that of the general proposition, or main question, to the complete analysis, bearing, and application of which all our investigations are directed. To elaborate this proposition is the work of the present chapter.

Material prosperity has already been defined as such conditions of subsistence, comfort, luxury, and happiness of man as are dependent on his possession and enjoyment of material objects of desire. The immediate conditions of highest material prosperity, then, are the possession and enjoyment of the largest number of these objects of desire — a maximum of utilities.

Utility being an invariable attribute and the immediate cause of material prosperity, it is the perfect measure of the same. But experience has shown that man's possession of the maximum of utilities is contingent on the employment of the principle of division of labor, that he may use all the forces at his command to the highest production of utilities.

We are thus led to the first general division of economic science, *Production*. This division will include the *production of utilities*, and as anticipatory to the requirements of exchange, the *origination, growth, and variation of values.*

Growing out of the application of the principle of division of labor, is the necessity for the exchange of utilities. But with utilities diverse in their subjective relations, — in the number and kind of wants which they satisfy, — diverse in their abundance and in the energy and time required for their production, exchange necessitates the introduction of an intermediate notion which shall serve as a measure or standard for comparison of utilities,[1] not as related to each other alone, but as related to the wants of man. This notion is *value*. Thus the second division of economics, *Exchange*, deals with the *exchange* of *utilities*, all comparisons being made in terms of value, generally through *price*[2] as representing value with approximate accuracy.

However, owing to the variable nature of value, its variability increasing with the diversity of the utilities themselves, human wants, and of all the elements which enter the notion of value, its distribution to society as wealth, through exchanges, is seemingly erratic. From this fact arises the necessity of discovering the channels of distribution of wealth, the formulation of the laws of equilibration of distributing forces, and the application of such laws to secure an equitable flow of wealth to the various elements of society. These objects comprise the third general division of our subject, *Distribution*.

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[1] Strictly speaking, one thing can not be said to measure another, unless their units are of the same kind; but in this discussion the term "measure" is used in the wider sense as an expedient for comparison.

[2] While price would always represent value, if we could devise some invariable standard or measure, in practise it has always been found that price does not always represent value when different periods of time are considered.

Again, utilities which have value, wealth, are continually disappearing in their application to the satisfaction of desires, to the production of other utilities, or in wasteful destruction. Hence arises the fourth general division of economics, *Consumption*.

Supplementary to the science of economics, the general divisions of which are set forth in the foregoing paragraphs, consideration must be given to the application of the principles of the science to the *Art of Economics*.

The general proposition of economics may be formally stated as follows: —

To determine the modes, means, and laws of production, exchange, distribution, and consumption of utilities, expressed in terms of wealth, value, and price, with reference to the bearing of such modes, means, and laws on material prosperity; and also, to make the application of the science thus elaborated to the production of the highest material prosperity.

NOTE.— It must be observed that the term "law" is used in several different senses by writers of English: —

First. It is the edict or command of some law-giving authority, as that believed to emanate from God, an absolute sovereign, or a legislative body of men. Such laws are termed statutory.

Second. The "common law" is established by long usage and the decisions of courts.

Third. "International law" is established by treaties and the usages of nations, fixed by declarations or by tacit consent.

These three kinds of law are subject to violation, and are enforced by penalties executed by the law-making power or the executive department of the government.

Fourth. We speak of the laws of grammar, rhetoric, logic, finance, political economy, with many others of the same order. And this use of the term is quite different from the uses previously mentioned. In this case we assume certain data, or conditions acting as limitations, or finite causes, and the resulting state or condition is designated "law." It might more properly be termed the result, or logical conclusion. But since the term "law" has been so generally used with this signification, the usage has not been departed from in this work. Laws of this kind have the validity of a logical conclusion: given certain data from which to reason, and we deduce certain results; but if we change the premises, the antecedent conditions or causes, we must inevitably change the result, or "law." Such laws are within human control to the degree that men are able to control the conditions or causes from which they flow.

Fifth. We speak of moral laws in the sense of the mental recognition of right and wrong — the obligations which we owe to our fellow men and to God — the oughtness of action. Moral laws are less under control of mankind, and less subject to change, than others mentioned: since they largely depend on the constitution of the human mind, its apprehension of the relations of men to each other and to God. But, with the exception of a few fundamental principles, like the "golden rule," moral laws are subject to change. The obligations of men to-day, in an age of enlightenment, are different from those of a few thousand years ago, the few axioms of ethics alone remaining unchanged.

Sixth. We speak, finally, of the laws of nature in the sense of the invariable sequences which follow certain conditions or finite causes in nature. Many of the conditions and causes of nature are beyond the reach of human powers, and to that degree are the laws of nature beyond man; but in nature, even, the field of human influence is large. Man can not change the law that "every particle of matter in the universe attracts every other particle in direct proportion to the mass and inversely as the square of the distance;" but he can apply a superior force to a body, and cause it to move in opposition to gravity; he can so direct bodies moving under the influence of gravity as to do his work; he can apply the law to his advantage, though the law be unchangeable. The law of chemical affinity causes hydrogen and oxygen, under certain conditions, to unite with explosive violence, forming one of the most stable compounds, known as water. Yet, by applying the stronger affinity for oxygen in potassium or sodium, the hydrogen is released as an attenuated and inflammable gas; or, by applying the analytic force of the electric current, the affinity of oxygen for hydrogen is overcome and the two gases are set free. It thus appears that most, if not all, of our so-called laws of nature are merely the consequences or results of some variable combinations of antecedent conditions or proximate causes; and the fact of the variability of the conditions or causes makes the result, or "law," uncertain, or variable. If the law of gravitation depends, as we must conclude, upon the properties of matter and the intermolecular and interstellar ether, a change in the constitution of matter or the ether (not impossible when we consider that the ultimate constitution of both are unknown) would give us a different law of gravity from that discovered by Newton. So all of our most fundamental natural laws may be merely the results of arbitrarily combined conditions and causes.

Therefore, when men argue, as is frequently heard, that "we can not change the laws of political economy any more than we can change the law of gravity," the importance of the truth stated is overestimated. Men can not change the sum of two and two; but they can, nevertheless, change the sum by changing the combination to one, two, and two, or in any other way they may desire. We can not change the law of gravity; but by combining some other forces with gravity we may produce a very different result from that produced by gravity alone. And in political economy most elementary causes and conditions are disposable by man, putting results, under certain limitations, within his control.

ANALYSIS OF INTRODUCTION.

- INTRODUCTION.
  - Preliminary
    - Economics defined
    - Material Prosperity
    - Relation of Economics to other sciences
  - Fundamental Facts and Relations
    - 1. Subjective Essentials — Wants
      - *a.* Physical
      - *b.* Physio-psychical
        - (1.) Sensual
        - (2.) Æsthetical
        - (3.) Social
      - *c.* Psychical
        - (1.) Intellectual
        - (2.) Moral
    - 2. Objective Essentials — Objects
      - *a.* Material Objects
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    - 3. Relative Essentials — Interactions
      - *a.* Objective Affinity, limiting Interactions
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  - Fundamental Propositions
    - Definitions
      - Utility
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        - 1. Classification with reference to Source and Character
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    - Axioms and Postulates
      - Mathematical
      - Logical
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  - Elaboration of the General Proposition
    - Production
    - Exchange
    - Distribution
    - Consumption
    - Application, or the Art of Economics
    - General Formula

CLASSIFICATION OF WEALTH.

- WEALTH.
  - 1. Classification with reference to Character and Source
    - *a.* Ops Potentia, or Potential Wealth
      - (1.) Land
      - (2.) Evidences of Debt
      - (3.) Patents
    - *b.* Ops de Facto, or Actual Wealth
      - (1.) Land Appendages
      - (2.) Usables
      - (3.) Money
  - 2. Classification with Reference to Use
    - *a.* Crescive Wealth, or Capital
      - (1.) Actual Capital
      - (2.) Tellurian Capital
      - (3.) Patential Capital
      - (4.) Credential Capital
    - *b.* Fruendive Wealth, or Fruendal
      - All Wealth in the hands of the consumer devoted to, or reserved for, the satisfaction of desire

BOOK I.

PRODUCTION.

UNDER *Production* are included all changes through which utility passes antecedent to its ultimate state of perfection,— the state in which it is applied to the end designed,— as well as the origin, growth, and variation in values. The subject is naturally divided into two subdivisions; viz., the *production of utilities* and the *production of values.*

PART I.—OF UTILITIES.

CHAPTER I.

MODES OF PRODUCTION.

THE *Production of Utilities* is effected in three ways, or modes: by *Creation*, by *Transmutation*, and by *Transformation*.

1. Creation.— In the realm of the material world such a change as *creation* is unknown; and, as isolated from other modes of production, it may be regarded as an impossible mode. But in the realm of thought man is truly a creator; his mind evolves forms and combinations which are materialized, through other modes of production, in the useful mechanism, the works of architectural and engineering skill, the æsthetic painting or statue, and the literary, scientific, or philosophical work. Without creation as the primitive mode of production man could scarcely rise above the plane of brute existences.

2. Transmutation.— *Transmutation* is the mode of production which is carried on by nature's forces as molecular changes in matter. In this operation man may take part only as a directive or limiting agency — imposing certain conditions. It consists in the growth of vegetable and animal life, and all synthetic and analytic chemical changes which transmute inutile matter into objects of utility.

3. **Transformation.**—The third and final mode of production is *transformation*. As the term signifies, it is a change in the form of molar masses of matter — the molding, the analytic and synthetic construction of objects of desire (utilities) from materials supplied by other processes of production. It is the process which places in the hands of mankind the object more or less perfectly adapted to the end desired; that is, to the satisfaction of desires, or to use as means in production, exchange, and distribution.

PRELIMINARY TO CHAPTERS II AND III, TREATING OF THE MEANS OF PRODUCTION.

THE Agencies, or Means, of Production vary widely in their degree of proximity to the results attained; that is, in the number of links in the chain of causation connecting the agency as cause or condition with the utility as an effect. The division into *proximate* and *remote agencies* is made as a convenience in treatment, the order being to begin with those most nearly immediate and pass in succession to those more remote.

CHAPTER II.

PROXIMATE MEANS OF PRODUCTION.

SECTION I.

THE GRATUITIES OF NATURE.

Of the *Proximate* means of Production, the indispensable and most nearly immediate are the *Gratuities of Nature.* Nature is always giving to man of her bounties; sometimes lavishly, so that he has but to put forth his hand to grasp and enjoy what is in profusion about him; and, again, so grudgingly that it is only by unremitting and labored effort that he maintains an existence. While, as before pointed out, that which is the gift of nature, and costs man no effort to possess, is excluded from the province of economics; yet, since man's labor is great where nature does little for him, and small where she does much; and, also, since what costs in one place no labor may cost labor in another, it is necessary to give nature's part in production a passing notice, in order to arrive at a good understanding of the relation of labor to utilities and values.

1. The Material Elements.— As means of production we shall include under *material elements* all those material things, placed by nature at man's disposal, which may be transmuted or transformed into utilities. These elements are the land, waters, and

atmosphere with all their primitive[1] mineral, vegetable, and animal stores.

Of the material elements there are at least five conditions which in some way affect the production of utilities. They will be considered in order.

a. Fertility of the Soil.— The soils of different localities differ widely in chemical constituents, thus limiting the variation and luxuriance of vegetable growth, and, indirectly, of animal life as well. That condition of soil is most favorable to production which affords, within narrow distance limits, such qualities and variations of soil as will give to the locality the largest *flora* and *fauna* of useful vegetable and animal life, as well as the most luxuriant and most nearly spontaneous growth of the same.

b. Ease of Cultivation.— Again, soils vary widely as to ease of cultivation, owing to variations in consistency, the presence or absence of obstacles, and the varying contour of the surface. Evidently a maximum ease of cultivation is the condition most favorable to production; since this condition requires the least effort on the part of man, other conditions remaining the same, for the attainment of any given result in the production of utilities.

c. Climate.— Besides its indirect effect on production through the effect on the energies of man,— promoting or deteriorating health and disposition to industry,— climate has a direct influence in varying the quantity and quality of the product. While tropical climates, with an abundance of moisture, favor the highest luxuriance and variety of organic growths, yet some very useful vegetables and animals thrive only in a dry, a temperate, or a cold climate. Accordingly, variety of climate within narrow distance limits favors maximum production — this maximum, of course, referring not only to the quantity, but to the quality and variety of organic productions as well. The most favorable climatic conditions are found in countries of tropical latitudes whose climate is varied by the proximity to the sea, the favorable position of mountain ranges, and in which there are quite wide variations in elevation above the sea-level.

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[1] The word "primitive" is used to limit the stores of nature to those which have not been touched by man. For example, trees growing in the forest are gratuities of nature, while those in the garden are in part the product of labor; likewise, wild animals are gratuities, while domestic animals have in them an element of man's labor in their production.

d. Distribution. — In estimating how much or how little labor must be put forth in production, the distribution of the material elements is a limiting condition which enters the problem. For example, the timber in one country may be so scarce as to force man to use materials which lack durability or other desirable qualities, or materials upon which more labor must be expended to produce the article desired than would be necessary in another country. On the other hand, the timber may be so plentiful as to encumber the ground, in which case vast quantities must be destroyed to make space for other vegetable growths, or to adapt the land to uses other than agriculture. The condition of distribution most favorable to production is such a distribution of material elements, in quantity, quality, and variety, as will allow of the selection of materials best adapted to the end designed, most easily transmuted or transformed, and will reduce transportation and other hindrances to highest production to a minimum.

e. Accessibility.[1] — Other conditions being the same, the *accessibility* of the material elements will vary the amount of labor necessary to production. Thus two countries may have the same distribution of coal in quantity and variety, while the labor required to mine the coal in the two may vary widely, owing to different thickness of the veins, thickness and hardness of the rock strata to be penetrated, varying depth of the coal below the surface, and the ease or difficulty with which the mine can be kept free from water and noxious gases. Again, one country may have its timber growing on a plain near to river banks, while that of another may be in swamps, on the rugged sides of mountains, or far removed from streams, making transportation difficult or impossible.

Maximum accessibility is evidently the condition most favorable to maximum production.

2. Nature's Energies. — The sun is continually shedding his energies upon the earth in the form of light, heat, and electricity. Vegetable life stores up a portion of this energy for the use of animals and man. Another portion of the sun's energy is expended in causing the winds and ocean currents; in lifting the waters of the sea, and transporting them over land to fall on elevated regions as rain or snow. These waters on their return to the sea may be made to do much of man's drudgery. Again, the energy which the sun has expended in ages past has been in part stored up for man's use in the vast coal,[1] oil, and gas fields of the earth.

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[1] The condition of accessibility might have been included under that of distribution; but it was thought a clearer understanding of the conditions favorable to production would be obtained by making distribution apply merely to quantity, quality, and variety of elements to be found in a locality within narrow distance limits, and accessibility to the ease with which man possesses himself of these elements.

All this power, outside of man himself, and under whatever form appearing, which may be made subservient to his will, is appropriately included under *energies of nature*.

The conditions of (1) *distribution* and (2) *accessibility*, which have already been considered under the head of *material elements*, are also conditions of *nature's energies*, each condition affecting in like manner the necessary labor to be expended in production.

SECTION II.

LABOR, THE ENERGY OF MAN.

Of the proximate productive agencies, *labor, the energy of man*, may be said to complement the gratuities of nature, and, with them, complete the circle of necessary agencies. We shall divide labor into two general classes, *present labor* and *labor of the past*.

1. Present Labor.— The labor which man is continually putting forth in the production of utilities may be termed *physical labor* or *mental labor*, as the

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[1] Coal, as well as all vegetables and animals, are included under the previous division as material elements, and they may be put to such uses as would make it appropriate to speak of them as materials. When however, they are used for power to do man's work, it is more appropriate to speak of them as energies. While it may seem that a classification is not logical and exclusive which leaves in doubt the question as to whether a piece of timber be a material element or an energy of nature, yet, as the terms imply, it is the use to which it is put which determines its classification. The varying use, then, to which these elements may be put, will determine whether they be classed as material elements or energies of nature.

power which he employs principally is muscular effort or mental effort.

a. Physical Labor.— Again, physical labor may be *skilled* or *unskilled*, according to the degree of intelligence of the laborer in a particular line of effort, and the degree of automatism established by continued repetitions of certain series of muscular contractions and relaxations.

(1.) *Unskilled Labor.*— It is difficult to say where the dividing line shall be placed between unskilled labor and skilled, as skill exists in every possible degree between the limits of total absence and the present high degree found in various industries and arts; but, common usage for authority, we make unskilled labor to include all kinds of effort in transmuting, transforming, and transporting which do not require, on the part of the laborer, high intelligence or a long apprenticeship of preparatory training.

In all such labor as the use of the shovel, the management of the plow, the driving of a team, skill may be acquired; but as the time required to learn how to perform such kinds of labor is short as compared to that required by some other kinds, and since they require only ordinary intelligence, such kinds of labor are classed as unskilled.

Unskilled labor, because it may be performed by any individual, and because want of skill is the universal condition out of which skill arises, finds always and everywhere the greatest number of laborers. If laborers were so many horses or oxen, we would say that the maximum production would be promoted by a maximum number of laborers; but, since they are human beings, and the condition which we are seeking is the highest production of utilities with the least expenditure of human effort, we must conclude that useful production increases with the number of unskilled laborers only so long as their number is not in excess of the number necessary to perform what we are unable to compel nature's agencies to do for us. This number, of course, will diminish in ratio to the whole population, as civilization advances, and we harness more and more of nature's forces to do our drudgery.

(2.) *Skilled Labor.*— Skilled labor is the effort which men put forth in the production of utilities, requiring a good degree of intelligence, and a certain preparatory training to the performance of the labor with the best results.

Skill enables the laborer to use his energies to such an advantage that every motion shall produce its intended result without any loss of energy. This condition he can approximate only by long-continued practise to secure automatism and accuracy of motion, and by the employment of mental energy to devise the method of reaching a result with the smallest expenditure of energy.

Since skill diminishes labor in the attainment of a certain result, it is desirable that all laborers, whether skilled or unskilled, attain the highest degree of skill possible, that there may be a maximum result in production for a given expenditure of energy.

We conclude, however, from reasons assigned in the preceding, on unskilled labor, that the production of utilities is promoted by increased numbers of skilled laborers only so long as their number is not in excess of the number required to perform what mechanism, driven by nature's forces, can not be made to do for us.

b. Mental Labor.— We classify as *mental labor* all human effort in the production of utilities in which effort the mental faculties are the more important factor. It may be divided into *æsthetic*, *intellectual*, and *moral labor*.

(1.) *Æsthetic Labor.*— The labor of the architect, the sculptor, the painter, the musician, the poet, and the play actor, may be termed æsthetic, since their efforts are directed chiefly to the satisfaction of the æsthetic wants.

Besides the direct effect of such labor in satisfying wants, there is a secondary or reflexive effect in the production of utilities. Thus, the laborer who enjoys a beautiful home, adorned with works of art, who varies the monotony of his life by listening to the execution of the masterpieces of music or drama, or by reading the literary works of poets, philosophers, scientists, and historians, is inspired with new energy and becomes more effective in the production of utilities than he otherwise would be.

(2.) *Intellectual Labor.*— The labor of the educator, scientist, inventor, legislator, and many professional men, is principally *intellectual*, and is classed as *intellectual labor.*

Similarly to the preceding, intellectual labor has both a direct and reflexive effect in the production of utilities. Such labor is quite essential to the rise of man in civilization above the condition of barbarous tribes.

(3.) *Moral Labor.*— The labor of the clergy, the philanthropist, and all who strive to direct men in paths of rectitude, may be termed *moral labor.*

The effect of such labor is, perhaps, more indirect, or reflexive, than direct, it being chiefly to remove destructive agencies, or agencies which hinder the action of other productive forces. This kind of labor, however, is as essential to the highest material prosperity of a people as any other.

Remark.— Of the three kinds of mental labor enumerated, it is to be observed that the condition most favorable to the production of utilities is that of a maximum of æsthetic, intellectual, and moral activity and power.

2. Labor of the Past.— While the *labor of the past* is not an absolute essential to production, and there must have been a time when man depended on present labor alone, yet, in any historical age, he has profited in the production of utilities by labor of the past.

Whether the labor of the past be represented by an implement, by materials partially prepared for use or gathered from nature's stores, or whether it be represented by money, it falls in the classification previously given as actual capital. When, however, it is in the nature of ways and methods devised by our predecessors, it may be classed as experience.

a. Actual Capital.— That form of the labor of the past denominated *actual capital* varies widely as to its fixedness or mutability, properties which have an inverse ratio to each other; that is, in the proportion that the degree of fixedness is high that of mutablity is low, and vice versa. Though no capital is known which is absolutely fixed or perfectly mutable, yet it is convenient to speak of actual capital as fixed or mutable, and for this reason the division is made.

(1.) *Fixed Capital.*— An implement, a mechanism, as a shovel, or harvesting machine, is fashioned for one use only; and, if we attempt to put it to other uses, the labor in its construction is largely lost. Doubtless the shovel may be made into an ax and the harvester into a steam-engine with less labor than by taking materials from nature's stores, yet the labor represented in the construction of these implements would be so largely lost that we class them as *fixed capital*. It is very evident that such capital is an important factor in our processes of production; and, furthermore, that maximum production is promoted by the more and more perfect adaptation of means to end. Such adaptation involves, in the direct or immediate instruments of production, a greater and greater fixedness of capital.

(2.) *Mutable Capital.*— Money, and other actual capital whose use has not been determined by final processes of transmutation and transformation, may be cited as the actual wealth embraced under the class *Mutable Capital*.

To illustrate: The log which comes from the forest may be cut into lumber, and undergo other transformations until it becomes part of a dwelling, a piece of furniture, a part of a machine, or it may be cut into fuel for driving a steam-engine or for heating a dwelling. While its use is undetermined, and it is in the hands of a possessor whose object is gain, it is properly classed as mutable capital. Cut into lumber, it loses a degree of mutability and its use is more determinate; but it is still mutable capital, and does not become fixed capital until it is transformed into an ultimate form of wealth, as furniture, a part of a dwelling, a part of a machine, or fuel, etc. It must be observed that, when it is in the hands of the ultimate possessor who has determined its use in any way to satisfy wants, as for health, comfort, enjoyment, or to sustain life, it is no longer capital but fruendal. The same distinction is to be made in the classification of ores, minerals, and many other forms of wealth, kept as a supply in store, to be changed into fixed forms of capital or into fruendal.

A supply of mutable capital sufficient to meet the demands of fixed capital and fruendal is to be regarded as favorable to a maximum production ; though, as will hereafter be shown, an excess would hinder production by causing a fluctuation of values — a fall in values always tending to curtail production.

Gold and silver, though stamped for use as money, are yet classed as mutable capital, since they may be changed into other forms of capital or wealth, by exchange, with small expenditure of labor. Money, like other forms of mutable capital, favors production only in so far as its amount is sufficient to meet the demands of exchange. This proposition will be the more evident after considering the subjects of *exchange* and the *laws of value.*

b. Experience.— In all our productive processes *experience* is an important factor, whether it be our own or that communicated to us from others. It will be considered under four forms, though these forms can not be said to be distinct from each other.

(1.) *Discoveries.*—Navigation has been made comparatively safe by the *discovery* of geometric truths, the facts of astronomy, and the laws of magnetism. Thus, while in early times much energy was lost in producing utilities to be destroyed in transit, by means of these discoveries we obtain a greater net result for a given expenditure of energy, and such discoveries must be classed as agents in production. Many discoveries in the arts and sciences give us labor-saving methods which are indispensable to the highest production.

(2.) *Inventions.*— Nearly all the great labor-saving *inventions*, the benefits of which we now enjoy, are the accumulated experience of many minds. One man conceives a device, another changes and improves it, until, finally, we have the perfected machine.

Inventions, as products of the mind, are closely related to discoveries — so much so, indeed, that it is often difficult to say whether a device is a discovery or an invention. However, those things, truths, relations, and laws which previously existed but were unknown, on becoming known and serving the ends of production, are termed useful discoveries. But combinations of known things, or ideas in new relations, to take advantage of certain laws, are by common consent termed useful inventions.

It is evident that the possession of the greatest number of useful discoveries and inventions is the condition most favorable to production.

(3.) *Co-operation.*— As a means of production, *co-operation* might be included under the head of "discoveries," arising, as it does, out of the discovery that several laborers can, by their joint effort, accomplish what would be difficult or impossible for one to accomplish unaided. Co-operation, however, and the principle of *division of labor* which it involves, both as discoveries and inventions, are of so ancient a date, that, like the gratuities of nature, they may be regarded as a common legacy to all mankind. They are, moreover, so important factors in production as to deserve consideration under separate heads.

The construction of a building, the management of a ship, the operation of a mine, with many other kinds of labor which might be enumerated, even if they could be performed by a single individual, would still be performed with great loss of time and energy. For certain kinds of labor, then, the co-operation of a number of individuals is a condition favoring highest production.

(4.) *Division of Labor.*— Since earliest times men have put in practise the principle of *division of labor* as well as that of co-operation. A would hunt, B would fish, and C would raise vegetables; thus all three would have more of the necessaries of life, by the exchange of products, than would be possible were each to follow all three vocations. The principle of division of labor is carried out to a high degree in modern processes of manufacture. It will be necessary to consider the advantages and disadvantages of employing the principle, in order to estimate the degree of division which can be practised compatible with maximum production.

If the division can be carried to such a degree that the operation is, as nearly as may be, a single and simple process, several advantages will be gained. Thus, in making a chair, one turns the rounds; another, the posts; a third fashions the arms; a fourth bores the holes to fit arms, posts, and rounds together; a fifth glues and combines the parts; a sixth weaves the seat and back; a seventh polishes the work, and an eighth paints and varnishes it. By such a division of labor each laborer attains skill in a short time, saving thus a long apprenticeship; he attains a higher degree of skill, enabling him to perform his work more rapidly and perfectly, and with smaller expenditure of energy than he otherwise could do. It is obvious, however, that the degree of division of labor has a limit, and that no advantage will follow the division of an operation which is simple and complete in itself.

Again, as to disadvantages, the laborer who is limited to a single operation or motion exercises continuously a single set of muscles, and such an operation is more wearisome than one requiring varied muscular action. Such inequality of muscular action is attended with abnormal physical development and often by impairment of health. Then, too, the health of the laborer may be endangered by other conditions under which he must perform his operations. He may be exposed to the heat and foul air of the furnace, the noxious gases of the mine or laboratory, the dust of the workshop, and the danger to life and limb of many hazardous occupations.

Finally, the extreme division of labor places the laborer in a position of dependence, owing to the fact that he has no complete trade — has attained skill in one operation only, of the many required to produce the finished article. The latter objection, however, has an offset in the facility with which the laborer may attain skill in a new occupation, under extreme division of labor, when for any reason he is deprived of employment.

To take advantage of the principle of division of labor, and at the same time reduce the degree of disadvantage to a minimum, two rules should be observed: —

The division of labor, in general, should not be carried to such a degree as to allow of no variety of muscular or mental action.

Again, when occupations are especially detrimental to health, or necessarily require sameness of muscular motion or mental action, the hours of labor should be reduced, to allow the laborer to vary his activity, and thus counteract the injurious effects of his occupation.

CHAPTER III.

THE REMOTE MEANS OR AGENCIES OF PRODUCTION.

BESIDES the direct effect on production of agencies already considered, all have reactive or secondary effects. These effects, however, of the proximate agencies, are usually of minor or secondary importance; and some have been referred to as modifying — increasing or diminishing — the direct effects of these agencies. There are other agencies — themselves the conditions or combinations of conditions; the effects or combinations of effects of proximate agencies already considered — whose indirect or reflexive effects have so great influence on production as to require separate consideration under the heading of *Remote Means.*[1] These will be treated under two divisions: *Reactive Agencies* and *Protective Agencies.*

SECTION I.

REACTIVE AGENCIES.

THE *reactive agencies* are those which are not directly productive of utilities, but which, as the term indicates, affect production chiefly by a reflection or reaction.

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[1] It may be denied that such agencies are productive means; but whether or not we regard them as efficient causes, it can not be denied that they are, at least, conditions which limit and direct other agencies, and thus have an effect promotive or destructive of production. It would seem that no good reason can be assigned why they should be excluded more than the energies of man, which are also limiting and directive of his own and nature's forces.

1. Health.— The *Health* of a community may be regarded as a condition limiting production by limiting the kind and quantity of energy which can be put forth. Thus considered, it falls under the head of proximate agencies of production. But another reactive effect is reached through consumption. Thus, in the times and localities of prevalent malarial, intermittent, and continued fevers, more of certain curative agents, as quinine, will be consumed, and the increased demand will direct more energy into the industry of its production. Again, the absence of all disease — a condition of maximum health — stimulates greater consumption of the staple articles of food, and through consumption, directs greater energies to their production by increasing the demand for them. Maximum health, both as a proximate and remote means of production, is the condition favoring highest production.

2. Intelligence. — Intellectual labor has been considered as a proximate means of production, but a high degree of *intelligence*, by creating new wants and strengthening or intensifying those already existing, stimulates consumption, and thus becomes a secondary or reactive means of production. It directs energy by creating demand. Maximum intelligence, both as proximate and remote means of production, is the condition favoring highest production.

3. Morals. — Besides eliminating parasitic and destructive elements of society, a high state of *morals* has similar reactive effects on production, to those of health and intelligence ; and, similarly, a condition of maximum morals is that which favors highest production.

4. Distribution. — It is evident, likewise, that the *distribution* of wealth has an important reactive effect on production. If wealth be equitably distributed, so that all elements of society have adequate means of supplying their wants, consumption of utilities is then at a maximum, in so far as consumption can be affected by agencies not creating, intensifying, or abating man's wants. Through this maximum consumption and consequent increased demand, production is stimulated. On the contrary, if the distribution be such that the few are in extreme wealth while the masses are in poverty, consumption is limited, markets glutted, and a stagnation of productive energies results. Though it may be true that the wealthy spend more lavishly because of their wealth; yet, since their numbers are comparatively few, their wasteful extravagance can never offset, in producing a demand for utilities, the depressing effect of the stinted consumption of the masses. To illustrate: If 100 persons are obliged to live on half rations, and wear scanty clothing, to one who can live luxuriously, less food and clothing will be consumed than would be if all might have a sufficiency.

It follows, then, that what is improperly termed overproduction is far more likely to occur when there are great inequalities of condition in the elements of society. But it is true, doubtless, that overproduction is an impossible condition,[1] where wealth is equitably distributed; for man's wants have always kept pace with his powers of production, and, we have reason to believe, always will keep pace with them.

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[1] This statement is not that men by concerted action could not produce more of any commodity than would be used ; but that, under equitable distribution, the balance of forces would be such that an excess

5. Transportation.— In no way does *transportation* change the article transported, unless it may be to injure or destroy; and it can not be considered a direct or proximate means of production of utilities. It may, however, by making utilities more accessible, stimulate consumption of certain commodities, and thus be a reflexive and directive agency in utility production.

Let us suppose that only one locality of a country has good facilities for producing iron. If this iron must be transported in carts over almost impassable roads, the amount of iron produced will be limited, because of the great labor of transportation — people living at great distances preferring to deprive themselves of many articles which they need rather than be to the expense of transportation in effecting exchanges. A railroad or other means of lessening the labor of transportation would bring iron utensils within the reach of many who could not before procure them. The demand being thus increased, more labor would be directed to the production of these utensils. By diminishing the labor of transportation, a larger proportion of labor can be devoted to utility production, securing thus a greater return for a given expenditure of energy. It will thus be seen that utility-production is favored by the diminution of the necessary labor of transportation.

General Remark.— It should be observed that certain conditions which would be favorable to the highest production of some single commodity might not be favorable to production in general. For example, a state of general ill health might be favorable to the production of certain medicinal agents; but the depressing effect on other forms of production, due to this cause, would evidently be in the direction of minimum production. Medicinal agents are designed to promote health, that greater energy may be devoted to the production of other commodities. The energy of production, then, devoted to the production of medicinal agents must be regarded as necessary waste, or frictional energy.

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of any commodity would be followed by a decline in its relative value, and by a drawing off of productive forces to other commodities, always, however, keeping productive forces in activity without producing an excess of any commodity sufficient to affect trade or deteriorate the material prosperity of the country.

SECTION II.

PROTECTIVE AGENCIES.

As long as humanity is imperfect in moral development a certain portion of man's energy must be directed to the protection of the weak against the selfish and strong, the individual against organized combinations of individuals, and against criminal classes. All agencies which serve such an end may be termed *protective;* but we need consider but two, *legislation* and *war*. Under these heads will be classed all forces or proximate agencies necessary to the execution of legislative, executive, and judicial branches of government and to the waging of war.

1. Legislation.— Without discussing the question of the proper province of governments, it may be assumed, as to their economic bearing, that *legisla-*

tion is a means of production, when it secures to the individual the right to do whatever will not infringe on the equal right of other individuals; when it secures the right of property; when it limits rights, prohibits occupations, and destroys combinations of individuals and systems of trade which are likely to detract from the general welfare or the material prosperity of the country. It is plainly a force used to secure favorable conditions under which other productive forces may act to the best advantage; though the smaller the amount of energy requisite to secure such favorable conditions, the more energy there will be to devote directly to production as proximate means.

Energy of legislation is, then, necessary waste, or frictional energy, and conditions which favor production of utilities are those which require the least expenditure of such energy consistent with adequate protection. Advancement in intelligence and morals would evidently favor the diminution of necessary legislative energy, and would favor utility-production as secondary, or remote, means.

2. War.— Like legislation, *war* is an agency of production when resorted to to secure conditions favorable to production. It is a last resort — one employed as a protective measure when all others fail. The destructive waste of war may be regarded as an investment to secure greater efficiency, just as the labor and material necessary to the construction of a labor-saving machine are investments to secure greater returns than could be otherwise secured.

Let us assume that the total productive efficiency of a nation is greater when all its inhabitants are in a state of freedom than when a part are in a state of bondage. Then a war which secures the freedom of slaves will secure greater productive efficiency; and, no matter how great the expense of the war, the greater productive efficiency will in time wipe out the expense and produce a final gain. The truth or falsity of our assumption is immaterial to the conclusion; as the only necessary relation is that the state or condition secured by war is that in which the ratio of productive efficiency to population is greater than existed under the previous state or condition. The argument would be as valid with the contrary assumption; the conclusion in that case would be, that a war which secures a state of slavery is a productive agency.

As was remarked with reference to legislation, the minimum expenditure of war, compatible with the attainment and preservation of other conditions favorable to production, is the condition to be sought as that conducive to maximum utility-production. Advancement in intelligence and morals is likewise favorable to the attainment of such a minimum of war expenditure.

CHAPTER IV.

DEDUCTION OF THE LAWS OF HIGHEST PRODUCTION.

THE discussion of the agencies of production leads us to observe that all the agencies of production are intimately connected; so much so, indeed, that we are involved with several, if not all other, agencies, whenever we attempt to arrive at the sum total of effects on production of any single agency.

We seek to trace the effects of the gratuities of nature, and discover that the conditions of man and every form of labor are so affected that we can not neglect such conditions in our computation. We attempt to trace the effects of physical labor, and we are immediately involved with mental labor; we can not even separate the two forms, but can only discover that some labor is more physical than mental, and vice versa. We discover that mental labor may diminish physical labor, and that physical labor, by its irksomeness, may induce mental labor to devise the means of avoiding the physical. We trace the effects of any of the proximate agencies, and we find that they have also secondary or reflexive effects — effects reached through consumption or some other intervening agency. On the other hand, if we trace the effects of the remote agencies, we find that each has one effect, while it may be of minor quantitative importance, which is, nevertheless, more nearly direct than its others.

Formulating this intimate relation between productive agencies we have: —

Each agency, as cause, reaches its effect through several routes or chains of causation. The shortest one, that with fewest intervening links, we may term the direct chain, and the effect reached through that chain, the direct effect. The one or more routes by which it reaches its effect through the intermediation of a larger number of links, may be termed the indirect, or secondary chains; while the effects reached through these chains we may term the indirect, secondary, reflexive, or reactive effects.[1]

Among the agencies themselves, as before indicated, there are differences in the number of links in their respective most important chains — that is, the chains, whether direct or indirect, which lead to the greatest quantitative effect favorable to production. Hence, agencies are classed as *proximate* and *remote means*.

In order to arrive at the total effect on production of any series of agencies, it is evident that we must take the sum of all agencies. But the direct and indirect effects of some agencies may be opposite in sign — that is, the one may be promotive and the other destructive of production. Again, the indirect, cumulative, and increasing effect of an agency may in time far outweigh the direct, transitory, and, it may be, evanescent effect of the same, as exemplified by the previous illustration of "war as a productive agency." Therefore: —

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[1] These terms are all convenient to use, according as we wish to describe the action of any cause. The term indirect, in contradistinction to direct, specifies an effect reached through some other agency. The term secondary indicates not only an indirect effect, but one of smaller quantitative importance. The terms reactive and reflexive are used indiscriminately to characterize the indirect effect following a primary direct effect in the manner of a rebound, as the stimulation of the production of medicinal agents by the prevalence of disease.

The total of productive agencies is the sum of a series of quantities, both positive and negative; and, to make that sum in any given time a maximum, we seek those conditions which will render the positive quantities increasing continually toward a limiting maximum, and the negative quantities evanescent, in case of destructive agencies which can be made to disappear, and decreasing toward a limiting minimum in the case of all others.

This total of productive agencies, a maximum, is reached through two processes. They are: —

The utilization of the largest and the largest number of productive agencies; and,—

The elimination of the greatest possible amount of destructive, frictional, and ineffective energy.

At this point we may dévelop the notion of the *Complete Productive Unity*, a notion which will be valuable to us in comparing countries having varying facilities for production, with reference to the determination of the modes and means of promoting material prosperity. Let us imagine a small country — so small that transportation from one point to another within the country is a factor which may be neglected without great error. This small country has every natural advantage, including variety of climate and soil to favor a quantity, quality, and variety maximum of agricultural productions; an abundance and variety of timber and of minerals easily accessible; streams to furnish power; and, in fine, every natural advantage which we can conceive to be of use in utility-production, without any accompanying disadvantage. Suppose, furthermore, that the conditions of labor, skill, intellect, morals, and all proximate and remote means of production are such as to promote a maximum utility-production. Such an ideal country would be termed a *Complete Productive Unity.*

It is to be remarked that the complete productive unity does not represent the greatest possible productive facility, but merely a combination in one country of such maxima as are at the time to be found existing in various countries. It leaves room for any advancement in skill, intelligence, and morals to increase the unit representing the highest productive facility.

CHAPTER V.

PROBLEMS.

(To be omitted by the general reader.)

It is proposed in the present chapter to make use of the notion of the *Complete Productive Unity* in the discussion of a few problems which involve the relations of the varying conditions of utility-production, in different localities, to exchanges between those localities.

Whenever in the discussion it is desired merely to speak of countries, without representing them quantitatively, they will be designated by the letters S. T. U. V. etc.; but in formulæ and all other places where a quantitative expression is desired, two coefficients and the curves will be used, the coefficients, when omitted, being understood to be unity. The coefficient outside the curves is a factor representing the relation of the country, as to its productive and consumptive power, to the complete productive unity. In countries enjoying about the same conditions of climate, density of population, enlightenment, and morals, this coefficient is proportioned to the population, as, under such conditions, the total consumption is proportional to population; likewise the total of labor which can be devoted to production. The coefficient within the curves — generally less than unity — represents the total productive facility of the country, that of the complete productive unity being unity. Of these two coefficients, the first may be termed the *quantitative coefficient*, and the second, the *facility coefficient*.

All utilities we shall divide for convenience into six classes, representing groups of commodities more or less necessary to material prosperity, and represented by the letters a, b, c, d, e, and f; a unit's quantity of each, in the complete productive unity, requiring a unit's population for consumption and a unit's labor for production. In diagrams or formulæ representing by classes the production of any country, a coefficient outside the curves is the class coefficient of labor, and represents the number of units of labor (per unit S. T. U. etc.,) devoted to the class; while that within the curves is the class *coefficient of facility*, and represents the approximation of the country for that class, to the facility of the complete productive unity.

To illustrate this relation let us take —

$$2(\tfrac{4}{6}S)\ a\ b\ c\ 2(\tfrac{1}{2}d)\ 3(\tfrac{1}{3}e)\ 6(\tfrac{1}{6}f)\ 14\ l.$$

The quantitative coefficient, 2, shows that the country under consideration has, as to its total demands for consumption and its total capacity for labor, twice the volume of our standard, the complete productive unity. The total facility coefficient, $\frac{4}{6}$, shows that the country can supply $\frac{4}{6}$ of its demands for consumption by devoting one unit of labor to each in the production of the six classes of utilities. It is the sum of facility coefficients of class divided by the number of classes. In the country represented there are maximum facilities for producing, a b, and c; but with respect to d, e, and f, one unit of labor devoted to each produces, respectively, $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{6}$ what is produced and consumed in the C. P. U. (the complete productive unity.) Consequently 2, 3, and 6 units of labor must be devoted to these classes, respectively, to bring production up to the full demand of consumption. Finally, having made labor supply what is lacked in facilities, 14 units of labor expended to produce what 6 units produce in the C. P. U. In the comparison of the different countries between which exchanges are made, the total labor of any country will be represented by such expressions as, $7\ l + (a + \frac{1}{2}\ c + \frac{2}{3}e)t$, in which $7\ l$ is the total labor expended in production, and what follows represents the transportation of the whole class a and $\frac{1}{2}$ and $\frac{2}{3}$ of the classes e and f, respectively.

Problem 1.— To discuss the varying conditions of utility production in two countries between which trade is unrestricted by other than natural causes.

Case 1.— Let the condition of the two countries be represented by formula 1; as nearly complete production as possible, by formula 2, all exchanges being prohibited by natural barriers; and production modified by exchanges by formulæ 3, 4, and 5.

FORMULA 1.	$(\frac{5}{6}S)$	(a)	(b)	(c)	(d)	$(\frac{2}{3}e)$	$(\frac{1}{3}f)$	
	$(\frac{2}{5}T)$	(o a)	(o b)	$(\frac{1}{10}c)$	$(\frac{3}{10}d)$	(e)	(f)	
FORMULA 2.	$(\frac{5}{6}S)$	(a)	(b)	(c)	(d)	$\frac{3}{2}(\frac{2}{3}e)$	$3(\frac{1}{3}f)$	$8\frac{1}{2}\ l$
	$(\frac{2}{5}T)$			$10(\frac{1}{10}c)$	$\frac{10}{3}(\frac{3}{10}d)$	(e)	(f)	$15\frac{1}{3}\ l$
FORMULA 3.	$(\frac{5}{6}S)$	2(a)	2(b)	(c)	(d)			$6l+(e+f)t$
	$(\frac{2}{5}T)$			$10(\frac{1}{10}c)$	$\frac{10}{3}(\frac{3}{10}d)$	2(e)	2(f)	$17\frac{1}{3}l+(a+b)t$
FORMULA 4.	$(\frac{5}{6}S)$	2(a)	2(b)	2(c)	(d)			$7l+(e+f)t$
	$(\frac{2}{5}T)$				$\frac{10}{3}(\frac{3}{10}d)$	2(e)	2(f)	$7\frac{1}{3}\ l+(a+b+c)t$
FORMULA 5.	$(\frac{5}{6}S)$	2(a)	2(b)	2(c)	2(d)			$8\ l$
	$(\frac{2}{5}T)$					2(e)	2(f)	$4l+(a+b+c+d+e+f)t$

As shown in formulæ 1 and 2, the country S has such facilities that she can produce everything for which there is a demand, though her facilities for producing e and f are inferior. T has maximum facilities for producing e and f, inferior facilities for producing c and d, and no facilities for producing a and b. S can, by the expenditure of $8\frac{1}{2}$ units of labor, secure complete production, while T, by the expenditure of $15\frac{1}{3}$ units of labor, can secure complete production of c, d, e, and f only. Now, unless T can induce S to exchange a and b for e and f, T must be deprived of a and b. S will not exchange unless her total labor is less than $8\frac{1}{2}$ units, or, at least, does not exceed that amount; for she can produce all she needs by the expenditure of $8\frac{1}{2}$ units of labor.

In formula 3, S is represented as putting double labor on a and b, while T puts double labor on e and f. By the exchange of these classes each may have a complete supply; S, by the expenditure of $6l+(e+f)t$; and T, by the expenditure of $17\frac{1}{3}l+(a+b)t$. For the reason before stated, the condition of exchange is that $6l+(e+f)t<8\frac{1}{2}l$; or that $(e+f)t<2\frac{1}{2}l$. If $(e+f)t$ be reduced to zero, then S enjoys advantages equivalent to those of a complete productive unity. This condition we might suppose to be true, if a and b were necessities which T must have. In such case S might impose on T the total cost of transportation, and the labor of each would be, respectively, 6l, and $17\frac{1}{3}l+(a+b+e+f)t$. Under the supposition that a and b are necessities of life, it would be possible for S to enforce on T the production of c, d, e, and f sufficient for both countries, and also the transportation both ways, as well. In this case the labor performed by each country would be 4 l and $30\frac{2}{3}l+(a+b+c+d+e+f)t$, respectively. Going still farther to suppose that T can subsist on a fraction of a and b, with her own productions, c, d, e, and f, S might supply her with the smallest quantity of a and b compatible with the support of life and still compel T to produce for S a unit each of c, d, e, and f, and to bear, also, the total burden of transportation.

Formulæ 4 and 5 represent conditions of production and exchange under the supposition that a and b are classes of commodities desirable, but not necessities of life. S profits by exchange when production takes place as in formula 5, and also in formula 4, bearing transportation one way, when $(e+f)t$ is less than $1\frac{1}{2}$ l. T could profitably exchange e or f for c whenever her cost of transportation, necessitated by the exhange, is less than 9 l; likewise it would be unprofitable for her to produce d as long as the labor cost of transportation due to exchange of e or f for d is less than $\frac{7}{3}l=2\frac{1}{3}l$.

Case 2.—Let us next suppose the two countries to be quantitatively equal, but qualitatively different as to facilities for production and demands for consumption. Formula 1 represents qualitatively and quantitatively the facilities of each country; and formula 2, the conditions of complete production without exchange. Then formulæ 3, 4, and 5 will represent conditions of exchange, as well as the labor cost of production and of transportation.

FORMULA 1.	$(\frac{7}{12}S)$	$(\frac{1}{6}a)$	$(\frac{1}{3}b)$	$(\frac{1}{2}c)$	$(\frac{2}{3}d)$	$(\frac{5}{6}e)$	(f)	
	$(\frac{7}{12}T)$	(a)	$(\frac{5}{6}b)$	$(\frac{2}{3}c)$	$(\frac{1}{2}d)$	$(\frac{1}{3}e)$	$(\frac{1}{6}f)$	
FORMULA 2.	$(\frac{7}{12}S)$	$6(\frac{1}{6}a)$	$3(\frac{1}{3}b)$	$2(\frac{1}{2}c)$	$\frac{3}{2}(\frac{2}{3}d)$	$\frac{6}{5}(\frac{5}{6}e)$	(f)	$14\frac{7}{10}l$
	$(\frac{7}{12}T)$	(a)	$\frac{6}{5}(\frac{5}{6}b)$	$\frac{3}{2}(\frac{2}{3}c)$	$2(\frac{1}{2}d)$	$3(\frac{1}{3}e)$	$6(\frac{1}{6}f)$	$14\frac{7}{10}l$

FORMULA 3.	$(\frac{7}{12}S)$		$3(\frac{1}{3}b)$	$2(\frac{1}{2}c)$	$\frac{3}{2}(\frac{2}{3}d)$	$\frac{6}{5}(\frac{5}{6}e)$	2(f)	$9\frac{7}{10}l+at$
	$(\frac{7}{12}T)$	2(a)	$\frac{6}{5}(\frac{5}{6}b)$	$\frac{3}{2}(\frac{2}{3}c)$	$2(\frac{1}{2}d)$	$3(\frac{1}{3}e)$		$9\frac{7}{10}l+ft$
FORMULA 4.	$(\frac{7}{12}S)$			$2(\frac{1}{2}c)$	$\frac{3}{2}(\frac{2}{3}d)$	$\frac{12}{5}(\frac{5}{6}e)$	2(f)	$7\frac{9}{10}l+(a+b)t$
	$(\frac{7}{12}T)$	2(a)	$\frac{12}{5}(\frac{5}{6}b)$	$\frac{3}{2}(\frac{2}{3}c)$	$2(\frac{1}{2}d)$			$7\frac{9}{10}l+(e+f)t$
FORMULA 5.	$(\frac{7}{12}S)$				$3(\frac{2}{3}d)$	$\frac{12}{5}(\frac{5}{6}e)$	2(f)	$7\frac{2}{5}l+(a+b+c)t$
	$(\frac{7}{12}T)$	2(a)	$\frac{12}{5}(\frac{5}{6}b)$	$3(\frac{2}{3}c)$				$7\frac{2}{5}l+(d+e+f)t$

It is easy to see, from an inspection of the formulæ, that exchange of classes a for f would be profitable for both countries when $9\frac{7}{10}l+at<14\frac{7}{10}l$, and $9\frac{7}{10}l+ft<14\frac{7}{10}l$; or when $at<5l$ and $ft<5l$. Exchange of b for e is profitable when bt and et are each less than $1\frac{4}{5}l$; likewise, exchange of c for d is profitable when ct and dt are each less than $\frac{1}{2}$ l.

Problem 2.—To discuss the varying conditions of utility-production in three countries among which trade is unrestricted by other than natural causes.

Of this problem it will suffice to take a single case; namely, that in which two of the countries have nearly complete productive facilities, and the third, incomplete facilities. Let the conditions, similarly to those of the preceding problem, be represented by the following formulæ:—

FORMULA 1.	$(\frac{3}{4}S)$	(a)	(b)	$(\frac{5}{6}c)$	$(\frac{2}{3}d)$	$(\frac{2}{3}e)$	$(\frac{1}{3}f)$	
	$(\frac{3}{4}T)$	$(\frac{1}{3}a)$	$(\frac{2}{3}b)$	$(\frac{2}{3}c)$	$(\frac{5}{6}d)$	(e)	(f)	
	$(\frac{1}{2}U)$	(a)	(0 b)	(c)	(0 d)	(e)	(0 f)	
FORMULA 2.	$(\frac{3}{4}S)$	(a)	(b)	$\frac{6}{5}(\frac{5}{6}c)$	$\frac{3}{2}(\frac{2}{3}d)$	$\frac{3}{2}(\frac{2}{3}e)$	$3(\frac{1}{3}f)$	$9\frac{1}{5}l$
	$(\frac{3}{4}T)$	$3(\frac{1}{3}a)$	$\frac{3}{2}(\frac{2}{3}b)$	$\frac{3}{2}(\frac{2}{3}c)$	$\frac{6}{5}(\frac{5}{6}d)$	(e)	(f)	$9\frac{1}{5}l$
	$(\frac{1}{2}U)$	(a)		(c)		(e)		$3l$
FORMULA 3.	$(\frac{3}{4}S)$	(a)	3(b)	$\frac{6}{5}(\frac{5}{6}c)$	$\frac{3}{2}(\frac{2}{3}d)$			$6\frac{7}{10}l+bt$
	$(\frac{3}{4}T)$				$\frac{12}{5}(\frac{5}{6}d)$	(e)	3(f)	$6\frac{2}{5}l+ft$
	$(\frac{1}{2}U)$	2(a)		2(c)		2(e)		$6l+(a+b+c+d+e+f)t$
FORMULA 4.	$(\frac{3}{4}S)$	(a)	3(b)					$4l+(2b+c+d+f)t$
	$(\frac{3}{4}T)$				$\frac{12}{5}(\frac{5}{6}d)$	(e)	3(f)	$7\frac{3}{5}l+(c+f)t$
	$(\frac{1}{2}U)$	2(a)		3(c)		2(e)		$7l+(a+e+d)t$

While it is observed that S and T can produce all classes of products up to the complete demand by the expenditure of $9\frac{1}{5}$ units of labor, U can produce only three of these classes, though having maximum facilities for the production of these three.

Since U is compelled to seek exchanges with S and T, she will have to bear the cost of transportation. She exchanges a and c with T for f and d; while with S she exchanges e for f. Supposing U to do all the carrying for her own exchanges, her labor cost for a complete supply will be $6l+(a+b+c+d+e+f)t$. But S has small facilities for producing f, and T has small facilities for producing b. Suppose S and T to exchange with each other on these classes, each transporting her own class; then the labor cost of these countries for a complete supply would be as in formula 3; $6\frac{7}{10}l+bt$ and $6\frac{2}{5}l+ft$, respectively.

Suppose further, as represented in formula 4, that each one of these countries produces commodities only of that class for which it has maximum facilities, or nearest to maximum facilities, then the total cost of production and mutual exchange, would be for the countries respectively as follows: $4\ l+(2b+c+d+f)t$, $7\frac{3}{5}\ l+(c+f)t$, and $7\ l+(a+e+d)t$.

In passing from the conditions represented in formula 2 to those represented in formula 3, S gains, if $bt<2\frac{1}{2}\ l$; T gains, if $ft<2\frac{4}{5}\ l$; and U gains if the possession of b, d, and f by the expenditure of $3\ l+(a+b+c+d+e+f)t$ is a condition preferable to being deprived of those classes by saving of the labor. So, too, in passing from the conditions of formula 3 to those of formula 4, there is a total gain in labor of production of $\frac{1}{2}\ l$; there is an increase in labor of transportation, however, by $(c+d)t$. There would be a gain, then, in the aggregate only when $(c+d)t<\frac{1}{2}\ l$.

The number of problems, cases, and variations of cases might be multiplied indefinitely; but a sufficient number have been given to illustrate the method of representing the conditions of utility-production in various countries, as affecting and affected by exchanges.

SYNOPSIS OF BOOK I.—PART I.

Book I
- Part I — Production of Utilities
- Part II — Production of Values

Production of Utilities
- Modes
  - 1. Creation
  - 2. Transmutation
  - 3. Transportation
- Means
  - Preliminary to Chapters Treating of Means
  - Proximate Means
    - Gratuities of Nature
      - 1. Material Elements
        - a. Fertility of Soil
        - b. Ease of Cultivation
        - c. Climate
        - d. Distribution
        - e. Accessibility
      - 2. Nature's Energies
        - a. Distribution
        - b. Accessibility
    - Labor the Energy of Man
      - 1. Present Labor
        - a. Physical Labor
          - 1. Unskilled Labor
          - 2. Skilled Labor
        - b. Mental Labor
          - 1. Æsthetic Labor
          - 2. Intellectual Labor
          - 3. Moral Labor
      - 2. Labor of the Past
        - a. Actual Capital
          - 1. Fixed Capital
          - 2. Mutable Capital
        - b. Experience
          - 1. Discoveries
          - 2. Inventions
          - 3. Co-operation.
          - 4. Division of Labor
  - Remote Means
    - Reactive Agencies
      - 1. Health
      - 2. Intelligence
      - 3. Morals
      - 4. Distribution
      - 5. Transportation
    - Protective Agencies
      - 1. Legislation
      - 2. War
- Laws of Production
  - Direct and Indirect Effects
  - Total of Productive Agencies
  - Of the Maximum of Productive Effects
  - The Complete Productive Unity
- Problems in Production of Utilities

PART II.— OF VALUES.

CHAPTER I.

MODES OF PRODUCTION.

The production of values is placed under two conventional modes, though they are in reality different phases of the same mode—*Creation.* As a convenience in treatment, the fluctuations in price, whether by increments or decrements, will be considered under *Growth.*

SECTION I.

CREATION.

Origin in Exchange.—Man in a state of solitude could know nothing of value. He could determine utilities, compute the measure of enjoyment to be derived from this or that object of desire, and compare one utility with another; but the notion of value would never take form in his mind. There must be a neighbor who has exclusive control of some objects of desire not easily obtainable by himself. He revolves in his mind a proposition to *exchange* some articles of his own for some possessed by his neighbors. By this exchange the notion of value comes into being.

Value is the quantitative measure of one object of desire, expressed in terms of another, as determined by the balance of mental forces dictating how much of a commodity in possession shall be relinquished for one not in possession, rather than undergo the irksomeness of the effort necessary to produce[1] *the latter or suffer the privation of its non-possession.*

It may be said then that the *origin of value is in exchange.* To illustrate: The first hunter and the first fisherman, bartering with each other, the one for fish and the other for venison, established for the first time a ratio of value between fish and venison. This was a varying relation, each one striving to get as large a share as possible in exchange for his own commodity, one of the commodities being taken as a unit of measure for the other.

Monopolization.—If all objects of desire were equally in possession of all individuals, easily obtainable by all, or none were held in exclusive control, there would be no incentive to exchange, and the notion of value could not arise. Agreeably to this fact, it follows that objects which have been common, or not held in control by individuals, once taken in possession, acquire the attribute of value, which they did not before possess, provided they are objects of desire. In such cases value is created by *monopolization.* To exemplify this statement: The first savages would not give any of the fruits of their labor for land, since land was around them everywhere, and there was no struggle for its possession. But later, when men multiplied, and formed themselves into tribes, they began to hold certain localities as their own hunting-grounds and places of abode. They would sometimes have to hold possession by force of arms against some other tribe which desired the same grounds. These lands acquired value, and men bought what they could not take by force of arms; or, perhaps, as the easier and safer method of gaining possession of desired lands.

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[1] "Produce" is here used in its widest meaning, including all necessary operations required to bring the perfected object into possession, aside from the operation of exchange of commodities.

In like manner it will appear that all values have their origin in, or are created by, monopolization and exchange. And it follows that value can not be an inherent property of things, but is merely an attribute, as before shown, arising out of the subjective and objective relations of things.

SECTION II.

GROWTH.

Earned Increments.—The *Growth* of values, which takes place by gradual increase, due to a corresponding increase in utilities, or to the overcoming of resistance or distance intervening between utilities and man's enjoyment, may with propriety be termed *Earned Increments of Value.*

Land is desired, because it is necessary to the production of utilities, and because it supplies a location for residence, for business, or for pleasure. In the state of nature land has no earned or real value; whatever of value in it resides is potential. But when its forests are cleared away; when freed from obstacles, unevenness, noxious weeds, and brought to a high state of productiveness; when enclosed by fences, ornamented by trees and flowers, and with buildings placed upon it, it grows in value, because of increased utility. Such growth is an earned increment of land, and represents a real value, an *ops de facto.* A commodity, as wheat, may be produced in one locality in

quantities far exceeding the demands of consumers there, while in another locality that commodity may not be in sufficient quantity to meet the demand. Labor employed in transporting the commodity from the place of surplus to one of scarcity does not in any way affect the utility of that object or commodity, but does increase its value, by overcoming resistance and distance intervening between the commodity and those desiring it. The use of capital for storing in a convenient place for distribution, and the labor required in handling commodities, may likewise add to their value without affecting their utility. In each of these cases the increase in value may properly be termed an earned increment of value of the commodity, and represents an *ops de facto.*

Unearned Increments of Value.—The growth of values, or the change which takes place independently of labor required for production, but concurrently with the varying conditions of *supply and demand,* are properly termed *Unearned Increments of Value.*

Land, which in a state of nature has no real value, acquires a value often fabulous, when we consider the labor, merely, expended upon it as improvement. This arises from the fact that civilized man establishes centers of trade and manufacture, and locations near or at these centers are more desirable because of greater facilities there. Thus, when held in control, a location commands a higher and higher price, in proportion to the importance of the center of trade or manufacture, and the proximity to such center. This increase in value in excess of the earned increment due to improvements, is an unearned increment, a potential value—*ops de potentia*—a value dependent, not on the element of labor, but on position and monopolization. If a center diminish in importance, or be overshadowed by some other center, its locations depreciate in value. But as all value in excess of that due to improvement is an unearned increment, such depreciation is a decrement of the unearned increment, or an approach to the real value. This decrement may, however, continue with its downward tendency in price, until it destroys what was once a real value; when improvements once utilized for certain purposes can no longer be utilized under the changed conditions. Such fluctuations in value, whether increments or decrements, may properly be included under *growth of values*, and under the subdivision, *unearned increments.*

Commodities, like land, fluctuate in value with the ever-changing conditions of *supply and demand.* If we could maintain all conditions of production uniform, so that a given amount of labor would always produce a given quantity of commodities, there would still be fluctuations in price, and these fluctuations would represent a potential variation in the value of commodities. If the fluctuation be above the normal of an average relation between labor in production and value, it is an unearned increment; but, on the other hand, if it be a depression below that average, it is a potential decrement. Both phases of fluctuation are conveniently included and considered under unearned increments, being changes which occur independently of the labor element in production.

It is to be remembered, before leaving the subject of modes of production, that all such processes as are

commonly termed "cornering," "bulling," and "bearing the market" are to be included under unearned increments. They are fluctuations in price due to temporary monopolizations and releases from monopolization, the latter being sometimes called flooding the market. The rise or fall in value is always secured by an artificial or forced change in the relations of supply and demand: by a false rumor the ratio of demand is increased and the price goes up, or the contrary; by "limiting the output," the ratio of demand is increased, and the price likewise goes up; by a sudden flooding of the market with stocks of goods held in control or in store, the "visible supply" is increased and the price is depressed; by buying all that is offered, the demand is increased and the price is advanced. Thus, whatever means be brought to bear on the market, increasing the demand or diminishing the supply adds to the price or value; and whatever diminishes demand or increases supply, causes a corresponding decrement or destruction of value.

The reasoning of this section is based on the supposition that value is measured by a stable and unvarying unit of measure, in which case value and price may be used synonymously, as they have been in discussions thus far.

CHAPTER II.

MEANS OF PRODUCTION.

The Means, or Instruments, of Production of Values.—Leaving out of consideration the means of production of utilities, which have already been discussed, and which, through utilities, have an indirect effect upon value, two of them, namely, *labor* and *law*, must be regarded as the principal means, or instruments, of production of value. They will be the subjects of the two sections of this chapter.

SECTION I.

LABOR.

In the discussion of the production of utilities *labor* has been already considered. While it is one of several instruments of production of utilities, it is to be observed that it has no fixed relation to utility, nor has the utility any fixed relation to value. But supposing the other elements which enter into utilities and values to remain fixed in efficiency, then the value of a thing would be proportional to the labor required for its present production. Labor thus enters value through utility; and it enters value just as it enters utility. Again, labor which is employed in transporting commodities from a place of plenty to one of scarcity, or in handling and storing for distribution, is a direct instrument in the production of values; for it is a real and necessary service to society, and gives the commodity an earned increment of value. The

labor required in collecting, storing, transporting, and distributing commodities represents an additional amount of energy which must be expended to supplement nature, which has separated the place of plenty from the place of greatest demand by barriers more or less difficult to overcome. It is evident that those countries which approximate most nearly to the conditions of the complete productive unity require the smallest total of labor to secure possession and enjoyment of utilities, and are thus most favored in the ease with which they attain a high state of material prosperity. Great commerce is quite as much an indication of some great lack of natural facilities as of the energies of a people, since commerce merely supplements nature in assisting a people to the attainment of high material prosperity.

SECTION II.

LAW.

In defining rights and protecting citizens in those rights, *civil law* becomes a means of production of values. The fact that civilized nations produce with much greater facility, and in number and magnitude of productions far exceed those of barbarous tribes, is due, in a large degree, to the stricter definition and more certain protection of personal and property rights in the civilized state. Private enterprise has the assurance that its rights to its product will be carefully guarded by governmental authority. In so far, then, as law lays down the lines of free action for enterprise, limits it to such action as will not interfere with the equal personal and property rights of persons and corporate bodies, protecting such enterprise in this free action, so far is law a means of production of values—a protective or regulative means, it might be called.

Again, civil or municipal law is a means of production of value when it grants special privileges, such as patents, copyrights, franchises, and charters. An individual makes a discovery or a useful invention, and the law, by letters patent, grants him for a term of years the exclusive right of control over such discovery or invention. If it be desirable, it becomes valuable solely because of the right of exclusive manufacture or use granted him by the government; for, without protection in exclusive control, the discovery or invention could have no value—people would not pay for that which could be had without price. It is evident, likewise, and for the same reason, that the value of copyrights, franchises, charters, and all monopolies conferred or granted by government, depend upon law for their value—law creates their value in giving them command over commodities through exclusive control.

The third way in which law becomes an instrument, or means, in the production of value is by its power to create demand, limit consumption, or limit supply. As individuals can, by concerted action, "bull" the market and produce a "corner," or "bear" it by similar means; so a government, if it see fit to use this power, can increase or diminish values with as much greater effect as its power is greater than that of a small number of its subjects. But as governments do not usually use this power for speculation, since what the government would gain its subjects would lose, the cases in which values are

thus created and destroyed by law are merely incidental to legislation enacted with other ends in view. When a country is plunged into war, it must have, on short notice, ammunition, arms, clothing, and other supplies. The great increase in demand, due to such cause, produces a rapid advance in price of those commodities, which continues as long as the demand is in excess of the supply. Thus the demand, created by law (the action of the government), is itself a creator of values.

But by far the most striking example of the power of law to create and destroy values is in the use of the precious metals as money. Since the dawn of history the precious metals, gold and silver, have been used as money. While they have been used also for ornament and the making of sacred and domestic vessels and utensils, the demand, which exceeds many times all other uses, is, and always has been, for money. The supply has not been plentiful enough to prevent the governments of the world from absorbing all the surplus above the amount used in the arts and sciences. Law has thus made an unlimited demand for these metals, and has fixed the relative values of the metals to each other; and as long as both metals were used without discrimination for or against either, they varied in value but slightly from the ratio of valuation fixed by law. Since the movement begun at Paris in 1867, the relative values of the two metals have diverged from a valuation of 15½ ounces of silver, valued at one ounce of gold, to a valuation in 1899 of 34.4 ounces of silver to one of gold. This can be accounted for only by the growing disuse of silver, except for small change, as money, and a corresponding increase in the demand for gold as money. This is found to be the true cause of divergence, since the other elements of value which affect these metals have been less variable since 1867 than before. Money, as will hereafter appear, is purely a creation of law; and since, without doubt, five sixths of the demand for the precious metals is for use as money, we must conclude that nearly all the present valuation attributed to these metals is created by law. And were all nations to prohibit the use of these metals as money, their value would fall in relation to commodities to one sixth their present value, or lower.

CHAPTER III.

LAWS OF PRODUCTION.

THE laws which govern the production of values are widely different from those which govern utility-production; since, of the proximate means of utility-production, labor is the only one which is an element in the notion of value, and to arrive at a full understanding of the laws of value, it will be necessary, first, to consider the *analysis of value.*

SECTION I.

THE ANALYSIS OF VALUE.

There are five elements which enter the notion of value, which will be considered in order; namely, *Urgency of Desire*, *Number Desiring*, *Present Labor Cost*, *Time to Produce a new Supply*, and *Abundance.*

1. Urgency of Desire.— As before shown, no article can be valuable unless it be desirable for some purpose — to minister directly or indirectly to man's wants. *Other things being equal, the price or value of a commodity or service varies directly as the urgency of desire.* If it be such as to arouse a strong desire, assuming that some effort must be put forth to gain possession of it, the individual will pay a comparatively high price for it; and vice versa.

2. Number Desiring. —Secondly, if a large number of individuals desire a certain commodity or service, the price will be high; it will be low when a small number desire it, all other elements of value remaining the same. *Price is directly proportional to the numerical demand.*

3. **Present Labor Cost.** — Again, if all other elements of value remain constant, the price or value of a thing will be higher, the more labor now required to be expended to produce it. It will be necessary here to note that labor of the past, except it be used as capital, can not be an element of value. An article may have required ten days' work for its production; but, if it can now be produced by the expenditure of one day's work, the one day's labor only must be regarded as an element in its value. For, rather than pay an extra price, the buyer will spend one day's labor in its production, or employ the service of another for such production. Capital, which is the result of labor of the past, may be employed in the production of utilities, and, as such element, it affects value — assists in producing it. But, like the gratuities of nature, its function is to lessen labor cost and thus diminish the price or value of the commodity which it assists in producing. *Other elements remaining the same, price is proportional to present labor cost.*

4. **Time to Produce a New Supply.** — Anticipation affects price. If there be a plentiful supply at present, but a prospect of its being exhausted before a new supply can be produced, the price is higher than it would be, were the time necessary to elapse shortened. For example, the price of wheat is higher six months before harvest than three months before, provided all other elements of value remain the same, including the "visible supply" and the prospect for a new supply. It, of course, follows that wheat must be higher if a certain quantity must be a six months' supply than if the same quantity be only a three-months' supply. In case of commodities produced continuously during the year, this element would be to a degree eliminated, but not entirely; for a question would still arise as the time required to make a certain increase in supply, in response to an increase in demand. The supply of articles manufactured with the greatest facility can not respond immediately to an increase of demand, since it requires time for the manufacturer to provide himself with materials, machinery, implements, and help for an increased output. The element of time, then, must always be an element of value. *Price increases directly with the time which must elapse before a new supply can be produced or the supply increased.*

5. **Abundance.** —Lastly, the abundance, or actual present supply, affects price, but in an inverse ratio. That is, with increasing supply, other elements of value remaining the same, the price must decrease, and vice versa. *Price increases inversely as the visible supply.*

SECTION II.

RATIO OF ELEMENTS.

From the preceding section it will be observed that four of the elements are increasing functions of value and one a decreasing function. Designating in order the elements of value, u, n, l, and t increase and decrease with value, while as a increases value decreases, and vice versa.

Let us take some fixed time in the past as a point of reckoning, and assume for that time that the numerical value of each element is unity. We will assume, also, that the value of the commodity under consideration is $\frac{100}{100}$, or unity. We will suppose that the value of the commodity at some later time has been increased twenty-five per cent.; then if V stand for value in dollars and cents at the fixed time assumed as the point of reckoning, its value at the later day will be K V, in which K is the index of increase of value, expressed by the fraction $\frac{125}{100}$, or $\frac{5}{4}$. If the commodity have lost 25 per cent. of its value during the time, then K would represent the fraction $\frac{3}{4}$. Likewise, if the elements, u, n, l, t, and a, at the later period of time be expressed as fractional parts of the first assumed value, we will arrive at the mathematical formula, $V \propto \frac{u\,n\,l\,t}{a}$; or value varies as the product of u, n, l, and t divided by a. Introducing K as the index of variation between the two times, we would have, $K\,V = \frac{u\,n\,l\,t}{a}$.

This formula is merely an expression in algebraic form of the law of the elements given in the preceding section. If K be computed for various commodities for a series of years, we will have a series of numbers known as index numbers, which have been made use of by nearly all the more recent economists as standards by which to compare values in different periods of time. The value of index numbers will be more evident when we come to consider the variation of the dollar, or the legal monetary unit, and how price and value are to be distinguished when they are compared in different periods of time.

SYNOPSIS OF THE PRODUCTION OF VALUES.

- PRODUCTION OF VALUES.
  - Production of Values Distinguished from Production of Utilities
  - Modes
    - Creation
      - Origin of value in exchange
      - Monopolization
    - Growth
      - Earned Increments of Value
      - Unearned Increments of Value
  - Means
    - Labor
      - In Production of Valuable Utilities
      - In Transporting, Storing, etc.
    - Law
      - Defining Rights
      - Granting Special Privileges
      - Creating or Destroying Demand
  - Laws
    - Analysis of Value
      - Urgency of Desire — *u*
      - Number Desiring — *n*
      - Present Labor Cost — *l*
      - Time to Produce a New Supply — *t*
      - Abundance, or Supply in Sight — *a*
    - Ratio of Elements
      - Direct
        - *u*
        - *n*
        - *l*
        - *t*
      - Inverse — *a*
      - Constant — *k*
    - Formula: $V \propto \frac{unlt}{a}$, or $kv = \frac{unlt}{a}$, when *k* is a fixed quantity, or index.

BOOK II.

EXCHANGE.[1]

MAN as a social being finds that he can most easily supply his wants by co-operation, division of labor, and exchange of products. It is undoubtedly true that the advantages of exchange forced themselves upon the human mind with the earliest tribal associations of primeval man. The system which began as a direct interchange of products and services has gradually become more and more complex, until, in modern civilized countries, its ramifications involve every other business; and the accuracy or inaccuracy, the justice or injustice, of its workings powerfully affect the welfare of the individual and the nation. It will be treated under two heads: *Direct Exchange, or Barter, and Indirect Exchange, or Trade.* They are to be regarded as the two *Modes of Exchange.*

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[1] Exchange, as a term used in political economy, is to be carefully distinguished from the banking term, which is merely a system of accounts of banks with each other.

GENERAL OUTLINE OF BOOK II.—EXCHANGE.

- Exchange.
  - Origin of Exchange.
  - Modes of Exchange.
    - Barter.
    - Trade.
  - Means of Exchange.
    - Transportation
    - Money.
    - Accounts.
    - Banking.
  - Laws of Exchange.
    - Unrestricted Exchange the Condition of Highest Material Prosperity.
    - Restrictions on Exchange.

CHAPTER I.

BARTER.

THE direct exchange of commodities as *Barter* was the earliest mode of exchange; and though in the advance of civilization it has to a degree been displaced, it still remains a mode in which no inconsiderable part of the exchanges of every country is effected. The country merchant still exchanges his wares for butter, eggs, and other produce; the farmer "changes work" and exchanges his commodities with his neighbors; the jockey still makes a precarious living by trading horses; small manufacturers exchange their fabrics for raw wool; and in many other lines of business and industry, "trade," as it is known in common parlance, enters as an important mode of exchange. In times of money stringency or business panic this mode includes an increasing percentage of transactions. But in the primitive conditions of mankind, before states were evolved, it was doubtless the only mode, and values were expressed in oxen or some other commodity which could easily be measured in numbers. Exchanges in this mode are made as —

Service for Service,
Service for Commodity, and
Commodity for Commodity.

The first is the performance of a service by one individual in consideration of the return of another service equal in esteem, or value; the second is the giving of a service for a commodity in possession of the person served; while the third is the exchange of one commodity for another.

Exchange by barter is so simple that it needs only to be stated to be understood ; and were it constant in proportion to exchanges effected through media, it might be omitted from the enumeration of factors of political economy. But since the volume of exchanges in connection with the volume of money determines, as will hereafter appear, the measure of value of commodities, the exchanges effected by barter also enter as a determining factor of the measure of value. While barter is a primitive, inferior, and cumbersome mode of exchange, it serves as a *dernier ressort* when the superior mode fails ; and it acts as a check to the disastrous results which follow money panics, or a diminution of the money volume, due to what is called "loss of confidence," and the withdrawal of money from the channels of trade and hoarding it during the period of consequent falling prices.

CHAPTER II.

TRADE.

THE second mode of exchange, in which the greater portion of the business of the civilized world is transacted, is known by the convenient commercial term, *Trade*. It is conducted by means of a medium, as money or credit, and may with propriety be denominated *Indirect Exchange*.

Trade[1] may be defined as the business transacted by the people in the exchange of commodities, either among themselves or with people of foreign countries. It is frequently called commerce. When applied to home transactions, it is called domestic trade or domestic commerce ; and when it is with foreign countries, foreign trade or foreign commerce.

The benefits of trade or exchange arise out of the economy, in production, of division of labor, co-operation, the utilization by each individual, or group of individuals, of all the maximum conditions which they enjoy favorable to production. Manifestly, in a country having a rough, sterile, or rocky soil, farming could not be advantageously pursued ; but, possibly, it might be one of the richest of countries in mineral or other natural products ; and industries in the direction of mining or lumbering could be carried on with great advantage. Likewise, the climate in high latitudes is favorable to one class of vegetable productions, while tropical or semitropical regions are adapted to others. By the exchange of productions, the people of one country and climate can enjoy at moderate cost the productions of all others. Likewise, the people skilled in one art or industry can enjoy the productions of others skilled in another, whether the producers reside in the same or different countries.

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[1] "Trade," as an economic term, is to be distinguished from the same term used in a popular sense for "barter."

That there is an advantage in exchange, or trade, no one denies; indeed, all people recognize the advantage to all, of an interchange of productions. But as to the advantage of free and unrestricted trade, as opposed to trade restricted by what is called a "protective tariff," there is a wide diversity of opinion. The subject, therefore, of the three subsequent chapters will be the *Free Trade* and *Protective Tariff* theories of trade. The treatment of this subject must necessarily be brief — confined to the main contentions of each theory.

CHAPTER III.

THE FREE-TRADE THEORY.

THE doctrine of *Free Trade*, stated concisely, is this: That trade between nations, states, or individuals will only be established when there is an advantage or profit to each party to the transactions; and, for this reason, no legal barrier should be interposed to restrict trade, while natural barriers should be as nearly removed or overcome as possible.

1. Natural Adaptation.— It is obvious that countries differ widely in natural adaptation for productions. Thus, China and Japan are better adapted to the production of tea than other countries; and there is, therefore, an advantage to these countries in exchanging tea for commodities which other countries can more easily and cheaply produce than they. For a like reason there is a profit to other countries in exchanging the commodities which they can most easily produce, with China and Japan for tea. The United States can not produce, without great labor cost, the gums, dyes, and spices, but can produce easily and cheaply the cereals. The United States, the West Indies, the East Indies, and the South American States would, therefore, find a mutual profit in a mutual exchange of cereals for gums, dyes, and spices. Similarly, one country is rich in minerals, lumber, or fur-producing animals, while others are adapted to agriculture; and a mutual interchange of products is profitable to the countries of such differing natural adaptation. Finally, one country by natural power, coal or timber easily accessible, may be well adapted to manufacturing and but poorly to agriculture and other pursuits. Such a country would find an exchange of products not only profitable, but necessary.

So, in all cases, assuming that artificial agencies do not interfere with the freedom of trade between individuals and countries, the only question to be considered in determining whether there be a profit in trade, is whether the labor cost of transportation outweighs the advantage to be gained by trade. But this individuals determine for themselves, and they need, therefore, no interference of law.

2. Progressive Adaptation.— Under the head of *Progressive Adaptation* is included such advantages for production as one people possesses over another, due to the degree of intelligence, mechanical genius, energy, and morals to which they have attained. The most advanced of the civilized nations have made great advancement in discoveries and inventions of labor-saving machines, and this gives them advantages over other countries of equal natural facilities, but inhabited by a less progressive people. Such advantages the United States and the foremost of the European nations enjoy; and they may exchange their manufactured products, with profit, with countries of Asia, Africa, and South America, for commodities requiring more of the drudgery of human labor to produce. It is likewise true that those countries, standing on a lower plane of civilization, reap a benefit in the exchange of their products for commodities which they either can not produce at all, or at a still greater

labor cost to them than would be expended on the commodities which they exchange. But in this case, also, it would appear that the "let alone" policy of free trade would be the best for all parties interested in the exchange of commodities. Here, too, each individual must decide for himself whether there be any profit in trade.

3. Natural Barriers.— Between countries there are often *natural barriers* more or less difficult to overcome — it may be an ocean, a desert, a mountain range, or mere distance overland. In all ages of the historic period men have reasoned on the profitableness of trade. They have built ships in which to transport their wares over the waste of waters to far distant climes; they have built roads over mountain ranges; they have invented the locomotive and steam and electric car, running over tracks of iron; they have tunneled through mountains and under rivers; and in every possible way has the ingenuity of man been employed to overcome the natural barriers between countries — "to annihilate distance" — that exchanges may be the more easily effected. This has all been on the theory that these natural barriers interfere with the freedom of trade, and that the greatest freedom of trade is the greatest good to all.

4. Legal Barriers.— When we consider that mankind is ever seeking a way of making intercommunication between countries easier, it would seem quite paradoxical that any country should interpose *legal barriers* to restrict trade between countries, unless it might be for the purpose of taxation by an easy mode of raising revenue. Yet we find, with but one notable exception, England, that all civilized nations do interpose such barriers, not merely to raise revenue, but for the openly declared purpose of restricting trade and protecting home industries.

5. A Cosmopolitan Theory.— The free-trade theory of exchange is a cosmopolitan theory, taking within its view the whole brotherhood of man. Local and self interests are lost sight of, and the welfare of all men in general, only considered. It opposes an altruistic spirit to an egoistic or selfish one. In fine, it treats all men as if they would do honestly and fairly by each other, and willingly divide the benefits of co-operation, invention, skill, intelligence, equitably, if not equally, among their brethren of other lands. It is the deductive, *a priori*, or subjective theory of trade, as opposed to the inductive, *a posteriori*, or objective theory. The reasoning of the free-trade theory is logical and unanswerable, if we grant the premises as true and complete. And, reasoning from those premises, which, we may add, are not impossible premises for some future age of the world's history, the following conclusion is reached: *That the utmost freedom of trade is the condition of the highest material prosperity.*

CHAPTER IV.

THE PROTECTIVE THEORY.

It is the purpose of this chapter to discover whether the well-nigh universal practice of nations in imposing legal restrictions on trade is based on a wide-spread popular heresy, or whether there are some reasonable considerations, overlooked by the economists, which lead nations, in practice, at least, to discard the free-trade theory.

Let us see upon what fundamental assumptions the reasoning of the free-trade theory is based.

First, it assumes that all individuals are free to engage in any line of enterprise, business, or industry which may please them, or which may afford them the best profit or return for labor, thus giving into their hands the power to level down, or equalize, the profits of business and the wages of labor. This assumption might be regarded as approximately true in a primitive state of society; but it is less and less true as we advance in the scale of civilization. The application of the principle of division of labor makes all workers specialists, limited in a great degree to a particular kind of labor. Again, the fact that great enterprises require great capital with which to carry them on successfully, puts these enterprises beyond the great mass of industrial laborers, except it be that they become mere parts of a great machine, which affords great profits to its owners and a bare subsistence to its component parts, the workers. The more minutely divided the labor, or the more complex the machine, the more difficulty does the laborer find, when detached from one machine, in becoming a component part of another. Indeed, by far the greater number of the industrial workers of to-day are in a condition of complete dependence upon the great corporations by which they are employed. It is obvious, therefore, that freedom of industrial labor is not a condition of the complex civilization of modern times.

Second, the free-trade theory assumes that free competition in the markets is all-powerful to level down profits and prices generally, so as to give exploiters, promoters, and captains of industry only an equitable share in the distribution of wealth. This assumption, too, might be approximately true in a primitive condition of society, and would be quite true, if all men were to obey the command, "Love thy neighbor as thyself." But when the control of industries is in the hands of the few, competition is wiped out by combinations of capital, and the trust can levy tribute from society to an almost unlimited extent. In practice, then, "to buy in the cheapest market and sell in the dearest" is but the dream of the theorizer; the manipulators of markets fix the prices, both of what they buy and what they sell.

Third, the free-trade theory assumes that a trade or exchange of commodities which, in fact, springs up between two countries, when no restrictions to trade are imposed by law, will, in fact, be beneficial to both countries. This assumption would be true if the social and industrial conditions of the nations of the world were approximately the same, but not otherwise. For, if we suppose one nation has attained a higher plane than the other nations of the world; that its citizens buy of foreign nations because foreign workers will work cheaper than its own; and that its workers are forced to remain in idleness till want compels them to work at as low a rate of wages as the foreign workers; then free trade, which is a leveling process, tends to level up the condition of the foreign nations, but at the expense of leveling down the condition of the nation which stands on the higher plane. Such a working of the free-trade theory in practice would obtain as to commodities which the inferior nations can produce with equal facility to that enjoyed by the superior nation. Finally, this tendency to level conditions of the workers in the superior and inferior nations may be counteracted and quite reversed by the power of monopolization of industry, conferred by great wealth and intelligence. England may be cited as an example of a nation which has made free trade profitable to herself, at the expense of the weaker and inferior nations, by the skill and intelligence of her people, by the power of monopolization in her accumulated wealth, and by the influence she has gained over other nations by becoming the great creditor nation of the world. The great interest tribute paid by the debtor nations to England places them in a condition of financial dependence; and whom England controls financially, she controls industrially and socially as well. Financial dependence is the first step toward political dependence, industrial serfdom, and social degradation.

There are several reasons adduced by the advocates of the protection theory for the restriction of trade by a protective duty on imports. They will be considered in order.

1. National Independence.— It is asserted by the advocates of protection that no nation can be politically independent when in a condition of industrial dependence; that every nation, so far as natural facilities and natural adaptation will allow, should do its own work; that a nation devoted wholly, or nearly so, to agricultural and pastoral pursuits can not advance in civilization and material prosperity with nations devoted to the fine, useful, and skilled arts, and to manufactures in general, or with nations having diversified pursuits. Many reasons may be given for this contention; but the principal reasons are: that manufacturing nations are wealthy nations, and enjoy the power which wealth confers; they have great centers of wealth, which can easily co-operate with each other to their own advantage, while the people of agricultural and pastoral nations can not easily combine and co-operate to their mutual advantage. Nations, too, for hundreds of years, have been quick to grasp the principle, and act upon it, that a nation should do its own work, as far as its facilities will allow, to become great among nations. England, in colonial times, saw that for the colonies to manufacture for themselves meant industrial independence, and industrial independence would lead to political independence, both greatly to the reduction of the Englishman's profits; so she prohibited her colonies from manufacturing goods for themselves, and attempted vigorously to enforce such prohibitions. These considerations, together with the fact that none of the great nations of the world are purely

pastoral or agricultural, and that such nations are all classed as inferior, would seem to be sufficient proof that diversification of industries is necessary to the advancement of nations and peoples to the front rank in material prosperity, enlightenment, and national greatness. And experience has shown that industries grow up more rapidly, and to much greater magnitude, under a protective tariff, than when subjected to the sharp and often ruinous and destructive competition of foreign manufacturers and tradesmen.

2. Infant Industries.— Free-trade advocates assert that industries will spring into existence in a country whenever they can be carried on with profit, without the fostering care of protection by duties on imports or by bounties on home production; that such taxes are levied on the whole mass of people to make what would otherwise be an unprofitable business, a profitable one to the few who might thus be induced to begin it. This, as a general proposition, seems to be true, but in practice it has been found fallacious. Suppose a nation has reached a point in its advancement where a certain industry can be carried on with profit. Men invest capital in it, and for a time do a thriving business. But soon the foreign producer, discovering the curtailment of his trade in the new country, suddenly drops the price of the goods produced to such a figure that they must be produced at a loss, if at all. This the wealthy concerns can do, but the weaker ones in the new country must abandon their enterprise, and lose the capital which they have invested in it. As soon as competition is destroyed, factories sold and devoted to other purposes than that of the manufacture of the competing goods, the foreign manufacturer restores the price of the goods to such a figure as will enable him to make a profit, and, besides, reimburse him for his losses while destroying competition. A few experiences of this kind make capitalists very "timid" in embarking in new enterprises, especially if they have to meet a powerful foreign competition, backed by unlimited wealth. To induce capitalists to invest in new and desirable industries, nations have fostered such industries by either a protective duty levied on imports from foreign countries, or by a bounty given to the home producer. Notable examples of the results of such a policy may be seen in the beet-sugar industry in France and Germany, and in the wonderful development in the iron and steel industries, the glass, crockery, woolen, and cotton industries in this country, besides many others which might be mentioned.

3. **High-Wage Level.**— Protectionists assert that a protective tariff levied on imported goods will enable a country to maintain a *high-wage level.* It is evident that wages, in countries between which there is free and easy communication and trade, must, in like industries, approximate a level by competition. But suppose that the wage of labor in one country is, on the average, for any cause, double that in another. Suppose, further, that the labor cost of a certain commodity, selling at wholesale for one dollar, is eighty cents in the one country and forty cents in the other. It is evident that an import duty of forty per cent. on this commodity, levied by the high-wage country, would put manufacturers in the two countries on an equal footing for competition, leaving transportation out of the problem. The one has a labor cost of eighty cents on the dollar, while the other has a labor cost of forty cents and a tax of forty cents, leaving both the same margin for raw materials and profits, twenty cents on the dollar. This kind of protection would enable the one country to maintain its higher wage level and keep all its labor employed. But to remove the protective duty would require the dropping of the wage level to that of the other country, or the discontinuance of the industry in the country of the high-wage level. The advantage claimed is twofold. First, the foreign producer sells at a lower price than he would sell at were the duty removed; and thus the foreigner is forced to contribute, in the reduced price of his product, to the support of the government for the privileges of selling in this market. Again, home labor is given employment at good wages, which would be otherwise idle, thus enabling the country to diversify its industries, and do a larger share of its own work.

4. **Bringing Producer and Consumer Together.**— The labor of transportation is, of course, a necessary expenditure of energy, but, like friction of machinery, the highest good is promoted by reducing it to a minimum. For this reason each country should encourage all those industries for which it has natural facilities — diversify its industries — that transportation from one country to another may be saved. For the same reason, in a country of great extent of territory, its industries should be diversified and distributed over various portions or subdivisions of its area. The labor of transportation thus saved can be devoted to transmuting, transforming, or may be entirely eliminated, and more time will thus be allowed

for recreation and intellectual avocations. There is a limit to the application of the principle of diversification. It is many times found to be true that the difference in facilities of two countries or localities is so great that the labor of transportation is small in comparison. The profitableness of exchange, therefore, is determined by the condition of labor cost, estimating labor, not in money units, but units of work ; *i. e.*, units of human toil, not mechanical work or energy. If the labor cost of producing an article in one country is greater than the labor cost in another plus the labor cost of transportation, then exchange is profitable to that country, provided it has some commodity which it can produce with facility to exchange for that article. The principle thus contended for by the protectionist is to *bring producer and consumer as closely together as possible.*

5. Every People Should Do Its Own Work. — Again, it is contended that *every people should, as far as possible, do its own work.* Every nation at all times has some idle workers, and in times of financial panic and business depression, the number of idle workmen is greatly multiplied. In this, as in every country, as it grows older, the distribution of wealth becomes more and more unequal ; and, if those who have laid by some wealth buy products from abroad while our own people are idle, then these people must be supported by public and private charity or become criminals to prey upon society, finally to be supported at public expense in reformatories and penitentiaries. The question may indeed be debatable, whether it would not have been better, from 1893 to 1898, when nearly 3,000,000 idle men and their families were without the means of subsistence, to shut out all foreign goods which we could have manufactured at home, with the view to compelling all who have money to expend to expend it for home products, thus giving employment to our own labor.

To illustrate this principle by an example : A man owns a farm of eight hundred acres, and has ten sons who do the work, he paying each one dollar per day and board. Ten men come along looking for work, and ask the "old gentleman" what he is paying for help. He tells them that he employs his sons at a dollar a day and board. The men being anxious for the employment offer to work for fifty cents. "The old gentleman," getting along in his dotage, thinks he sees a profit of fifty cents a day in them, employs them and supports his own sons in idleness. Query: Was it a profitable change for him in the management of his business or a profitable one for his sons?

The theory of the protective tariff is presented in many ways and under many forms ; but the arguments are mostly included under one or another of the contentions given in the preceding paragraphs.

Protective Tariff; Free Trade or Revenue Tariff.— The policy which the protectionists seek to put in practice is that of levying duties only on commodities which we can produce advantageously, with a view to the advantages argued in the preceding paragraphs. A "free trade" or "revenue tariff," on the other hand, is levied only on such articles as we can not cheaply and economically produce, with the view to raising revenue only, and allowing free competition on articles which may be cheaply and economically produced in this and other countries.

CHAPTER V.

OBJECTIONS TO THE PROTECTIVE THEORY.

1. Interference with Constitutional Rights.—It is objected to the protective theory that every individual has a constitutional right to "buy where he can buy the cheapest, and sell when he can sell the dearest."

The legal phase of the question has been settled by the United States Supreme Court in favor of the protective theory. As to the moral principle involved, and the doctrine of "natural rights," there is a wide diversity of opinions, depending upon the standpoint from which men view the question. The extreme individualism of Anarchism holds that the individual should be under no restraint whatever from the government or by other individuals. There should be absolute freedom of the individual to do as he wills. The more moderate individualism of Jeffersonian democracy held that individuals have certain natural and civil rights, and that the sole function of governments is to protect men in these rights. The moderate collectivism of republicanism, from 1860 to 1896, held to the centralization of power in the general government, and that certain rights, regarded as absolute and supreme by individualists, must be waived by the individual, or subordinated to the highest good of all; that the whole is greater than any part; that the functions of government are to a certain degree

paternal. Finally, the extreme collectivism of socialism would subordinate the individual entirely to the state. It would make the government a centralized power purely paternal, controlling all trades and professions with its supervising care, and providing with equal care for the support and welfare of its children. There are arguments for the support of all these positions, but political economy can consider them only incidentally as a determining factor in the hindrance or promotion of material prosperity.

2. Taxing the Many To Support the Few.—It is objected that the practical working of the protective tariff is to *tax the many for the support of the few.*

There is no doubt that it does operate in such a manner when combinations are formed to raise or maintain prices. The remedy in such case would be to remove the import duty on the commodity upon which a combination or trust to raise or maintain prices has been formed. But when, in some cases, as protectionists contend, the result has been to lower prices by the increased competition, the objection does not hold good. It is true that the home consumer usually pays a price greater than the foreign price under duty; but he does not pay a greater price than he would, were the duty removed; rather a lower price. And especially does the foreign producer raise his price when the duty is removed or reduced so low that the home producer must close his business. Where the reduction in prices, then, is due to the building up of a home competition, the duty can not be said to be a tax upon the consumer. It is, rather, a relief from tribute to the foreign producer.

3. Artificially Raises Prices.— It is objected that a protective tariff duty levied on imports artificially raises the price of the article by the amount of the duty levied, which increased price the consumer must pay for both the foreign and home product.

This objection is merely a different statement of the preceding, and its answer applies equally well to this. It may be added, however, that the history of the workings of the protective tariff shows that, while the levying of a protective tariff has usually been followed by a rise in price of the commodity affected, yet the building up of the industry at home has invariably been followed by a fall in price of the commodity affected, to a point below that prevailing when the tariff was first levied. While this fall in price is in many cases due partially to the improvements in methods, machinery, inventions, and discoveries, yet many facts and circumstances go to show that the decline is in no small degree due to the competition at home, built up with the industry.

4. Stimulates Overproduction.— Again, it is said that the protective tariff stimulates overproduction and a glut in the markets, followed by business failures and a general business collapse.

In reply, it may be said that such a condition as overproduction, while possible, has never yet been known, and probably never will be. What is called overproduction, as will hereafter appear, is in reality an underconsumption, and arises from an inequitable distribution of wealth and the consequent inability of consumers to buy. Gluts in the markets and business failures are wholly due to other causes. Production is never carried to the point of producing more than will be consumed, if men had the means with which to buy, though it is sometimes carried on until there ceases to be a profit in the business. Yet a man whose business judgment leads him to invest his money at a risk in a protected industry, would make an equally bad investment in some other direction, were there no protected industry. Panics and business failures have been as frequent under a revenue tariff as under a protective tariff.

5. Fosters Unprofitable Industries.— It is argued by opponents of protection that it fosters industries which are in themselves unprofitable; that the products of these industries could be more easily possessed and enjoyed — more economically acquired, by an exchange of commodities requiring less labor in their production.

This objection holds good as to many industries, without doubt. It is not probable that the people of the United States could produce tea, coffee, spices, dyewoods, and other tropical productions economically to themselves, however much they might be protected. The little of them which we might possibly produce could be far more easily acquired by exchanging our cereals or manufactured products for them. This is true because of the fact that the labor expended in producing tropical products in the United States is great, while in tropical countries but little labor is required in their production; and that the labor of production in tropical countries, with labor of transportation added, is much less than the labor which would be required for their production in this country. Legislators should be convinced, by the results of preliminary experimentation, that the natural facility for production exists, before levying a protective tariff for the benefit of a new industry; and, for the experimental stage, a bounty would generally be the more economical and practical protection to give, in that it would not raise the price of the commodity to the consumer

6. Infant Industries.— A tariff is often levied on the foreign product competing with that of home industry, on the ground of protection to *infant industries*. And, it is said, these same industries continue to ask protection after they have passed the period of infancy and become adult monopolies.

Unfortunately for the great mass of consumers of commodities, this statement is true, and its truth is due to the selfishness of men, which leads them to ask for a tax to be levied on the rest of mankind for their benefit. Many industries, once established, could stand alone and successfully compete with the foreign producer. But, after an industry is established under protection, it might not be able, under free trade, to continue in operation and pay the same increased price for labor that it paid under protection. Then, rather than discontinue the industry or reduce the scale of wages to that of foreign countries, it would undoubtedly be better to give that industry such a percentage of protection as would represent its higher cost of production, due to the higher price paid its labor.

7. Fosters Trusts and Monopolies.— Again, it is objected that a protective tariff fosters trusts and monopolies, which fix prices on their commodities, limited only by the cupidity of the individuals who have entered into a compact to levy tribute from the

rest of mankind. While it is true that some of the greatest trusts and monopolies are formed to control, and do control commodities not protected by import duties; yet, it is also true that many such combinations are hedged about by protective tariff duties, which shut out foreign competition, while the home production and its price are largely controlled by a mutual agreement or contract of the home producers.

The remedy in this case lies in the power of the government to place upon the free list every commodity, the price or production of which is controlled, or partially controlled, by a trust or combination of any kind.

There are many other objections urged against the protective tariff, but they may nearly all be brought under the head of one of the preceding objections, discussed in this chapter, and the limits of this manual preclude a more extended summary.

CHAPTER VI.

DANGERS OF THE PROTECTIVE TARIFF SYSTEM.

In the preceding chapter the main objections raised to the protective theory have been discussed; but there are certain dangers to the welfare of the people in the practical workings of this system of taxation, and building up of home industries, which have been reserved for this chapter.

1. Repeated Change of Policy.— The frequent change of the party in power, in recent years, and consequent repeal of old tariffs and the enactment of new, has had the effect of placing many industries in an unsettled state. No sooner would the industry adapt itself to one law than there would be a change of administration and a change of the tariff law or a threat of change. Thus, in recent years, we have had before congress, in rapid succession, the Morrison bill, the Mills bill, the Mc Kinley bill, the Wilson bill, and the Dingley bill. The continual agitation of the tariff in congress could have but the one effect on business involving the industries which have been protected by the tariff laws; viz., to make the investment of money in those industries of uncertain profit.

The remedy for this evil is not easy to see, and the problem is one for our statesmen to solve. It has been suggested that the tariff be placed under the control of a commission created for the purpose. There is a serious objection to this plan, in that it

takes from congress a proper legislative function, and at the same time opens the door to corruption. In congress each of the opposing political parties is on the alert to discover any fraud or corruption in the other party, thus diminishing that danger. In a non-partisan commission, there would be great danger that the influence of money upon its members would be all-powerful, and the corruption escape the public eye.

2. Undue influence of Wealth.— While congress is a much safer body with which to entrust all tariff legislation than any commission, yet it is not entirely free from the taint of money influence. The sugar schedule of both the Wilson and Dingley bills, by which a great trust is enabled to appropriate millions rightfully belonging to the people, has been the cause of a righteous indignation on the part of the people. Similar scandals in the fixing of other schedules have been the source of much opposition to tariff legislation. Again, the hearings on the tariff before the committees in congress have been principally the hearings of testimony of interested parties and pleadings of paid attorneys of various industries, while the great mass of the American people, the opposing interested parties to the case, have been but scantily heard. The efforts of these interested witnesses and attorneys have been, not to get such a tariff as will prove fair to themselves and equitable to the consumers of their product, but to get for themselves, or the industries they represent, the highest possible duty levied on foreign imports, regardless of the welfare of the great mass of consumers of their product. These abuses have been great in recent years, and so great that it has now become proverbial that each session of congress brings to Washington a "horde of millionaire beggars," praying congress that they may be protected as "infants," or that they be allowed to tax the people that they, the "millionaire beggars," may, out of the generosity of their hearts, give the "poor laborer" steady employment at good wages. And straightway, after congress has granted their petition, they go to their homes and reduce the rate of wages of their employés.

Many great trusts and combinations have been formed for the purpose of limiting their product, to hold the price up on one hand, and the price, or wage, of labor down on the other, thus largely increasing profits ; and still the very controllers of these trusts have the inexpressible hardihood to ask congress to lend the aid of the government to their conspiracy against mankind. A decent regard for the rights of the people demands that every article or commodity, the production of which is controlled by the trust, or other combination of capital, should be placed on the free list.

Though the evils referred to are such as to require a remedy, and are often urged as arguments against the theory of protective tariff, they must rather be regarded as abuses in the practice of the theory. It is probably no worse for a people to be placed at the mercy of a home trust than a foreign trust ; the government should protect the people against both.

SYNOPSIS OF THE MODES OF EXCHANGE.

- EXCHANGE
  - Origin of Exchange
  - Modes
    - Barter
      - Service for Service
      - Service for Commodity
      - Commodity for Commodity
    - Trade
      - Definition
      - Benefits
      - Free-Trade Theory
        - Doctrine Stated
        - 1. Natural Adaptation
        - 2. Progressive Adaptation
        - 3. Natural Barriers
        - 4. Legal Barriers
        - 5. A Cosmopolitan Theory
      - Protective Theory
        - Assumptions of the Free-Trade Theory
        - 1. National Independence
        - 2. Infant Industries
        - 3. High-Wage Level
        - 4. Brings Producer and Consumer Together
        - 5. Every People Should Do Its Own Work
      - Objections to Protection
        - 1. Interferes with Constitutional Rights
        - 2. Taxing the Many to Support the Few
        - 3. Artificially Raises Prices
        - 4. Stimulates Overproduction
        - 5. Fosters Unprofitable Industries
        - 6. Infant Industries
        - 7. Fosters Trusts, etc.
      - Dangers of Protection
        - 1. Repeated Changes of Policy
        - 2. Undue Influence of Wealth
  - Means (for synopsis see page 168)
  - Laws (for synopsis see page 174)

CHAPTER VII.

TRANSPORTATION AS A MEANS OF EXCHANGE.

Transportation has been referred to in various connections, in the preceding chapters, as a mode of production of values; but it is only through its function as a means of exchange that it can add to the values of commodities.

If we suppose such conditions to exist as will make the greatest freedom of exchange desirable, then those same conditions would require, to promote the highest material prosperity, that transportation be facilitated in every possible way: by lessening the labor of transportation in the construction of good roads and vehicles, railroads, steamships, and artificial waterways; also by applying the highest mechanical skill and inventive genius to the application of the forces of nature in transporting.

Again, every cause which will render exchange desirable as promotive of material prosperity will also render transportation desirable as a means of effecting exchange; but, as before shown, certain forces might be so applied as to cause an exchange between remote countries, when the conditions of highest prosperity of one country would require that there be no exchange with the remote country, but one rather with its own people — an internal trade. Yet, whether or not the exchange in itself be most favorable to the prosperity of the countries when the con-

ditions are found which force the exchange, facility of exchange and transportation as a means are desirable. Transportation, like friction in machinery, is a necessary waste of energy, a minimum of which is always a condition of highest material prosperity.

In modern civilized countries transportation has become one of the greatest, if not the greatest, of industries, and its influence upon the welfare of a nation can scarcely be estimated. But since its influence upon the welfare of a people is exerted through distribution, it will be more fully discussed in Book III, on Distribution.

CHAPTER VIII.

MONEY: DEFINITION, ORIGIN, AND FUNCTIONS.

MONEY, by a slow process of evolution from barter in and between the tribes of primeval man, has become one of the most powerful institutions of civilization. It is the great agency in facilitating exchanges, and, through exchange, in facilitating co-operation and division of labor in production. It has been variously defined, but for the purposes of discussion in this work it is defined as follows: —

Money is an instrument, created by custom or law, which serves as a medium of exchange, a measure of value, and a standard of value.

For the origin of money we must go far back into the prehistoric period of the race; and it was, doubtless, one of the first inventions. The convenience of estimating wealth numerically was early discovered and utilized. Thus, the early shepherds estimated their wealth as so many oxen. Though possessing other kinds of wealth, the ox they made a unit of valuation by which to estimate all wealth. Again, it was discovered that convenience in exchange required all kinds of wealth to be easily convertible into some one kind, universally desired, which, in turn, could be as easily reconverted into any one kind. For example: The fisherman who needed a coat might not easily find the clothier who wanted fish at the time he, the fisherman, needed a coat; and, further, if he

found such a clothier, the clothier might not need fish in quantity sufficient to pay for the coat. But by exchanging fish for some universally desired wealth, as money, this in turn could be exchanged for any kind of wealth which he might desire; and money, being divisible into larger and smaller units, could be exchanged in quantity to equal a greater or a smaller valuation of the commodity desired, as the case may be.

It therefore followed in the evolution of money, that such commodities were selected to serve the purpose of money as were universally desired and easily expressed in a numerical relation; such as could be kept for an indefinite length of time without loss, decay, or deterioration; such as had a high valuation in a small space, allowing of their being carried on the person and conveniently transferred from one individual to another; and such as were tolerably uniform in buying capacity in different periods of time.

Guided by these requirements, nations at a very early period fixed upon the precious metals, gold and silver, stamped in pieces of various sizes, representing different denominations, as the instruments of exchange, or money. These metals have been used as money well nigh universally among all nations during the historic period of the race. They possessed a commodity value, because of their beauty and freedom from corrosion by exposure to the elements, making them highly esteemed for ornament; also because of their malleable and ductile properties, making them easily convertible into implements and utensils. But their universal use as money has given them by far the greater portion of their value, or command over commodities in exchange. From commodity money the transition was easy to tokens which by common consent represented wealth.

Tokens as money have been of great variety in kind and material. Most ancient tribes and nations stamped pieces of metal with various devices and emblems, and in convenient sizes and forms to serve the purposes of money. But the material was not always one of the precious metals; it was not always metal. Shells strung like beads have been used, as the Indian wampum; also pieces of mica, leather, and paper.

Money, to serve as a medium of exchange, must possess the attribute of value. This is evident without argument, when we consider that no one would exchange that which he esteems valuable for that which has no value in his own and other people's estimation. While value is necessary to money, real or commodity value is not necessary. It matters not whether the value be real or potential. The early bronze coins of Rome, having a potential value as coin five times the real or commodity value of an equal portion of metal not stamped by the Roman mint die, served the purpose of money even better than at a later period when the value of the coins was the same as that of the metal in them. The advantage was in the fact that the higher valuation of coin was found in the lighter weight, and there was no incentive to melt down a coin for use in the arts when its value was greater as coin than as metal. There was, of course, in the potential coin, something of a disadvantage in the greater liability to counterfeiting. This higher valuation of metallic coin than of an equal portion of unstamped metal, found in the moneys of nearly all nations of antiquity, was due to governmental control. As long as the government of Rome controlled her bronze coinage, limiting it to a certain volume in proportion to the business done by her people, the added use given to coin over metal sustained its higher valuation; but when the coinage was placed in the hands of her generals, who coined money in larger and larger quantities with which to pay her soldiers in the Punic wars, the valuation of the bronze coins gradually fell till they became of equal value to that of an equal amount of metal to that contained in them, or approximated nearly to such equality. What was true of the early Roman coins was true of the moneys of other ancient states. Even with the precious metals the valuation as coin was generally sustained above the valuation as metals. Thus the law which gave control over money and gave to coins a use not possessed by the metals which they contained, was the source of the added potential value of coins over metal.

If the function of money were merely to measure and pass values in exchange of commodities, the permanency or variability in the value, or buying power, of money would be of small moment; but when it must be also a standard of value, a measure for deferred payments, the stability or permanency in the buying power of money is one of its most important qualities, to allow of a just and equitable payment of debts. If money grows in buying power, the debtor is required to pay more than in equity he should. On the other hand, if money decreases in buying power, or what is the same, when the average of prices goes up, the debtor gains at the expense of the creditor. There are many evils resulting from money of fluctuating buying power; but they will be discussed in Book III, on Distribution.

The history of money is extensive, and includes in one of its subdivisions the history of the precious metals. These subjects have been treated admirably and exhaustively by Alexander Del Mar, to whose works the student of money is referred for reading in connection with this work. From a reading of the works referred to it will appear that the civilized states early saw the advantage, and necessity it may be said, for their own and their people's welfare, that the state control its coinage and its issue of money. This control was lost in modern civilized Europe by the introduction of private coinage in 1666, since which time the monetary systems of the civilized world have been in the greatest confusion, and complicated with other problems of political economy from which they should be entirely divorced.

CHAPTER IX.

THE QUANTITATIVE LAW OF THE VALUE OF MONEY.

THE value of money is its purchasing power — its command over commodities and other forms of wealth. It is determined by the formula of value given in Section II of Chapter III, Book I, which is: $v \propto \frac{u\,n\,l\,t}{a}$,[1] in which u represents the urgency of desire for money; n, the number desiring it, or population; l, the present labor cost of its production; t, the time required to produce a new supply, or the rapidity of increase in supply; and a, the abundance.

As applied to money, however, the general formula should be somewhat modified. In this case u and n may be conveniently united into one term, that upon which both of these terms depend; namely, the volume of business to be transacted; and we may substitute B for this term in place of u and n. Again, while the general formula is true, if the velocity of circulation remain uniform, it is evident that increasing the rapidity of circulation of money is equivalent to increasing its volume, as far as its effect on the value of money is concerned. For if money is made to circulate twice as fast, effecting twice as many exchanges, half the money will do the work before done by the whole, and with the same efficiency. This is an inverse factor and enters the formula in the same manner as a, the abundance, or volume. Making these changes in the formula, it will be: $v \propto \frac{B\,l\,t}{a\,r}$, in which r is the rapidity of circulation of money.

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[1] Read, "v varies as the product of u, n, l, and t divided by a."

Let us first consider the case of stability in value of money when it is purely a commodity money of gold and silver. In this case both metals must enjoy free or private coinage; that is, private individuals must have the right to take their gold and silver to the mint and have them coined into money without cost to them, or at a nominal cost of minting, called seigniorage. Under free or private coinage, it will be seen, the value of the coin will be the same as that of the metal in it with seigniorage added. The value of money will be constant, first, when the elements entering the formula are constant; B, the volume of business to be done in a unit's time; l, the labor cost of producing gold and silver from the mines; t, the time element of production, or the rapidity with which they can be produced; a, the present abundance, or volume of the metals; and r, the rapidity of circulation of the metals as money. Again, if a, the volume of money, be halved while other factors remain constant, as might be done by discontinuing one of the metals as money, the value of money would be doubled. But if, at the same time, the rapidity of exchange were doubled, the effect of halving the volume of money would be compensated and the value would remain constant. Without further discussion it is easy to see how the change of any one factor would affect the value of money, and just what compensations in other factors must be made in order that v shall remain constant.

It will be seen that such a money would be stable in value only by chance; for all factors are variable and none subject to the control of legislation, except a, which is in some degree controllable. The law can determine that gold and silver shall both be full money, having all money functions conferred by law, and free coinage of both; or that one only shall be money; or that one shall have all money functions and the other a part of them, making it subsidiary. The uncertainty of the amount of metal which may be presented to the mint, in any case, makes it impossible to regulate the money volume by law.

But if the government were to limit all coinage and determine the material, as well, of which it makes money, the formula would become $v \propto \frac{B}{a\,r}$, the factors l and t being eliminated from the problem. In this case the money of a country would be completely under control of the governing power. B and r would be to a certain extent variable, and beyond governmental control; but a, being completely in control, could be made to compensate the variations of B and r. This complete control of money was enjoyed by nearly all the nations of antiquity, and was first yielded to the goldsmiths and silversmiths in 1666.

From the discussion which has preceded, it is easy to formulate what is known as the quantitative law[1] of the value of money: *The value of money is directly proportional to the volume of business to be done in a given time and inversely as the volume of money multiplied by its rapidity of circulation.*

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[1] This law has been so generally recognized by economists that it would scarcely seem necessary to quote authorities. But in recent years some men, mostly politicians, in order to defend the pernicious and

In other words, to increase the volume of money, other conditions remaining the same, is to increase prices; and to diminish the money volume is to diminish prices.

This law, in its application, requires some explanation as to what must be included in the term money, by the quantitative law, to determine the value of money and the range of prices. It is evident that bank checks and drafts, and other forms of credit, take the place of money to a great extent in effecting exchanges; and, in so far as they take its place, they go to swell the circulation of money in the sense contemplated by the quantitative law. In some countries a much larger volume of business is done by credit than in others. And in such a country a comparatively small volume of actual money, supplemented by a large factor of credit, does the same work that in another country is done by a larger volume of actual money, supplemented by a smaller credit factor, maintaining in each country the same equilibrium of prices. To determine to what extent credit has its effect on the value of money, and through it, on the range of prices of commodities, is not an easy problem; and at the present time, with our inadequate statistics on the subject, it is not more than approximately determinate. Alexander Del Mar, in his work on "The Science of Money," has estimated that money circulates once a week, on the average, in the United States; that is, the total amount of money which changes hands in business each week, counting every piece of money as many times as it changes ownership, is equal to the volume money. For 1894 he estimated the total volume of money, actually in circulation and having an influence on prices, at seven hundred and twenty millions. This included all kinds of currency issued, less amount in U. S. Treasury and in banks. The amount in banks was deducted, not because it is not in a certain sense in circulation, influencing prices, but because it is the basis of the check and draft system included in another estimate, that of the credit circulation. Bank checks, drafts, and other credits are much slower in circulation than money. In the same chapter, Mr. Del Mar estimates the total credit circulation effecting exchanges by other means than money and bank notes, at the equivalent of seven hundred and forty millions of money circulating once a week. Thus, in 1894 the total of money and credits effecting exchanges in this country was the equivalent of $1,460,000,000 of money circulating once a week.

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inequitable gold standard of values, have found it necessary to deny the quantitative law of the value of money. The following high authorities may be mentioned as having stated and accepted the law, among many which might be quoted: Paulus, juris-consult of the Roman Empire in the third century: Justinian, the great lawgiver, or expounder, of the Roman Empire in the sixth century; John Locke, James Mill, John Stuart Mill, David Hume, Ricardo, Professor Sidgwick, and Professor Jevons, English economists; Lord Overstone, Mr. Gallatin, J. R. McCullough, Professor Fawcett, J. S. Nicholson, Professor Perry, and Professor Laughlin — high authorities in this country and in Europe.

CHAPTER X.

THEORIES—THE COMMODITY, MERCANTILE, OR AUTOMATIC THEORY.

THERE are two principal theories of money. The first has been variously designated as the *Commodity Theory*, the *Mercantile Theory*, and the *Automatic Theory;* the second is called the *Fiat Theory*. In speaking of the first theory, generally, in this work, it will be called the *Commodity Theory*, as more exactly expressing the fundamental idea of the theory than is expressed by the other designations.

1. The Commodity Theory.—The doctrine taught by the commodity theory is that money is valuable solely because the material of which it is made is valuable, and that the material as a commodity should have the same valuation as the equal weight of a stamped coin, or, at least, should vary but slightly from that valuation.

It is held by advocates of the theory that money is automatic, or self-regulative, in valuation, when the law of supply and demand is allowed to operate without any legislative interference. Let us suppose that money be limited, as to material, to the precious metals, gold and silver. If new mines be discovered, and the supply of these metals be increased from this or any other cause, the valuation of the metals and money will fall, as compared to other commodities; and, if this fall continue, men will abandon the pursuit of mining for something more remunerative, and the equilibrium between money and commodities will be restored. But if, on the other hand, these metals for any cause become scarce, the valuation of the metals and money is increased as compared to commodities. Then men leave other callings to join in the search for gold and silver, and the production of these metals is increased accordingly. This increase in production, in turn, lowers the value of money, or, what is the same thing, raises the prices of commodities generally.

While it is true that this so-called automatic or self-regulative principle must have an influence tending to moderate the extremes of fluctuation in the comparative valuation of money and commodities, it is not in any sense automatic or self-regulative. Before men can be influenced to abandon chosen callings to increase the numbers of miners of the precious metals, the valuation of these metals must be considerably advanced, and some time must elapse before such a considerable increase in the product will lower the price to a former equilibrium. Again, discoveries are sometimes made which in a short time greatly swell the volume of the precious metals, and they must then fall in value to a point considerably lower than the former equilibrium; and, also, a considerable period of time must elapse before men abandon mining to reduce the supply and restore an equilibrium of prices.

However, the vastness of the hoard of the precious metals, the accumulation of centuries, renders their rise and fall in valuation a slow, secular change, extending over long periods of time. Of course, the value of the metals is governed by the whole volume as related to the demand for them, and since the total production of any one year is but a small fraction of the total mass of the metals in the world, even a violent change in production could change the total volume but slowly. For example, from 1851 to 1852 the production of gold was doubled in a single year. But the total increase in gold was only the five-hundredth part in value of the total hoard of gold and silver, an increase in the mass of money metal of only one fifth of one per cent.; and though this increase in production was the most rapid and violent change in production ever known in the history of the precious metals, the effect on their valuation in the one year was not perceptible. Again, from 1820 to 1856 the production of gold was increased twentyfold; and, the increase continuing to add largely to the supply of the money metals until about 1873 and 1874, it was sufficient to diminish considerably the value, or buying power, of gold and silver. It is estimated that gold and silver as money lost 33⅓ per cent. of their buying power from 1850 to 1875; or, what is the same thing, general prices rose 50 per cent. during that period. Prior to this period, however, from 1809 to 1849, the precious metals, though increasing in production, increased but slowly — much more slowly than the demands upon them by the business world. This was, in effect, a diminution of money as compared to business, and prices fell during that period of forty years to half those of 1809.

These citations, which might be indefinitely multiplied in number and enlarged upon, are sufficient to show that the "automatic principle" relied upon by many advocates of the commodity theory to regulate the value of money, is powerful only to narrow down, to a certain extent, the amplitude of the swing of prices, from one extreme to another, due to the change in the valuation of money.

The commodity school of financiers is divided into four sub-schools, or classes; viz., *Monometallists*, *Bimetallists*, *Symmetallists*, and advocates of a composite money, who might be called *Correctionists*. A brief statement of the teachings of these three classes of financiers will be given in order.

a. Monometallism. — The system of money known as monometallism is the use of one of the precious metals, only, as money of ultimate redemption, or the money with which all other kinds of currency are redeemed. This metal alone has all money functions, and becomes the measure and standard of values, the common factor of all business transactions.

In some countries silver is chosen as the money metal, and in others, gold; but since the Paris conference of 1867 there has been a systematic and concerted action on the part of the great holders of money and credits, and the beneficiaries generally of fixed incomes, to establish the gold standard of values in all countries of the civilized world. The movement to establish monometallism began about 1855, when Michael Chevalier attempted to induce France and other European nations to discontinue the use of gold as money, and establish silver as the sole money metal. This was soon after the discovery of gold in California and Australia, and a great fall in the valuation of gold, and a corresponding rise of prices, was predicted. M. Chevalier proposed to demonetize gold for the avowed purpose of diminishing the volume of metallic money in the world, thus lowering prices in the interest of the money- and credit-holding and fixed-income classes; or, as it was expressed, to "redress the situation." With this end in view, Germany, Portugal, and the Netherlands demonetized gold in 1857 and later; but England, which had established the gold standard in 1816, France, which had been on the bimetallic basis since the enactment of the code Napoleon in 1803, and other countries, for various reasons, refused to abandon their systems of money. About ten years later, when gold production had to a degree fallen off, and that of silver largely increased, the efforts of the same class, and with the same object in view, were directed toward the demonetization of silver. The concerted action determined at Paris in 1867, by representatives of eighteen leading nations, resulted in the demonetization of silver, in the United States in 1873, and in the principal European countries in that year and in 1874.

There has been a tendency on the part of nations in all periods of history to pass from the baser to the more precious metals as a medium of exchange, as they become more wealthy and powerful, for two principal reasons: First, as men become wealthy, they desire a medium which will enable them to effect large business transactions with the greatest ease. They wish for this purpose the largest value in the smallest possible space and weight; and the evolution has been from bronze to silver, and from silver to gold. This was true of the history of Rome and of all other great nations of antiquity. A second reason is to be found in that the more precious metal, as gold, can be more easily controlled by the few, who, by the control of money, are enabled to control prices to their own advantage.

The advantages of a gold monometallic system are found in the convenience of gold to handle, for effecting large transactions; also, in that it is a metal universally esteemed, and not, therefore, dependent to so great an extent on legal enactment for its value as a commodity less generally esteemed. The objections to it are principally two: First, the sources of supply of gold are extremely variable and unreliable, as shown by the wide fluctuations in the rate of production, thus making its volume an uncertain factor of its value, entirely beyond the control of man. For example, more gold was produced from 1850 to 1875, a period of twenty-five years, than from the discovery of America to 1850, a period of three hundred and fifty-eight years. Again, gold production increased twentyfold from 1820 to 1856, and the present annual production is nearly thirty times that of three quarters of a century ago. Second, the ease with which gold is controlled by concerted action of a few of the extremely wealthy, places a weapon in their hands which threatens the welfare and liberties of the people.

Silver monometallism, as a system of money, has four important advantages over gold monometallism: First, the production of silver, though variable, is far more uniform as to rapidity, or rate, making the volume of silver, one of the chief elements of its value, less variable. Second, silver is more widely diffused, all nations, both civilized and uncivilized, using it largely as money. Its demand, then, another of the principal elements of its value, is more constant and uniform. Third, it being much bulkier and heavier than gold for the same value, and more generally in the hands of the middle and poorer classes, places it beyond the control of the wealthy classes ; or it is, at least, less susceptible to control by the moneyed classes. It can not, so easily as gold, be withdrawn from the hands of the people and locked up in bank vaults and national treasuries. Fourth, the fact that, owing to its lower valuation, it can be coined into pieces of lower denominations than gold, better fits it for the small transactions of life, which make up the great bulk of exchanges. All nations could get along without gold, but none could dispense with silver, except by substituting a baser metal, or some such device as paper currency.

Agreeably to these statements, tables of general or average prices, compiled during the last century, show that silver has been much more uniform in value, or buying power, than gold, notwithstanding the legislation adverse to its use during the last quarter of a century. But both systems of monometallism are crude inventions of man in a primitive and uncivilized state, and should have no place in modern civilization. They are retrogressions due to the disintegration of society in Europe after the fall of the Roman Empire. Each petty sovereign assumed for himself the sole right of coining money in his realm. But these sovereigns, who first plundered the goldsmiths and silversmiths of their hoards of precious metals, later, as an easier and safer means of replenishing an empty treasury, sold their rights of coinage to these same speculators in gold and silver. Thus private coinage was introduced into the Netherlands toward the close of the 16th century, was adopted in England in 1666, and, before the close of that century, all the leading nations of Europe had surrendered their control of money to speculators in silver and gold bullion.

b. Bimetallism.— The system of money known as *Bimetallism* is the use of two precious metals, gold and silver, as money at a fixed legal ratio of valuation, each metal, when coined, having all money functions, being legal tender for all debts, both public and private, and both metals having the privilege of free coinage at the mint, or, at least, equal privileges of the mint. Thus, in addition to the commodity value of the coin, the law gives it a value by giving it a money use, and this use is more definite and certain than when the money use is given merely by custom, or by common consent not enforcible by law.

By free coinage is meant merely the right of individuals to take gold and silver to the mint and have them coined into money. The government may or may not make a charge for coining. The charge made for coining is called seigniorage ; and when the government makes no charge for coining, as is now the case in this country with gold, it is called free and gratuitous coinage. In the expression "free and unlimited coinage" no more is meant than by the expression ,"free coinage," since coinage must be unlimited to be free. The former expression, however, has the advantage of being more explicit.

There are several advantages claimed for bimetallism over a system of monometallism, and they will be enumerated in order :—

1. It is found that, for convenience in business transactions, we must have two classes of coin, one of high and one of low valuation, that they, as money, may be well adapted for both large and small transactions. By common consent, in nearly all ages, and among all peoples, gold and silver have been selected as the material from which these classes of coins are made. The metals are, therefore, in their money use, complementary to each other.

2. The chances are, in the second place, largely against the two metals increasing and decreasing together in production. The one may increase while the other decreases; or, if they increase or decrease simultaneously, they will almost surely do so at different rates. If, then, we were to draw ordinates representing the rise and fall in production of the metals separately, then draw a line whose rise and fall is determined by the average ordinate of the two, the latter representing the average production of the two metals, will probably be more regular than either line representing singly the production of the two metals. The case in which this would not be true would be when one of the metals is quite regular in its production, and the other quite irregular. In this case the irregular metal would introduce into the average ordinate a larger irregularity than is found in the one approximately regular in its production. But in this case the irregularities of the one are greatly reduced in the average line of production. From these considerations it will appear that the volume of metallic money is less liable to fluctuation when money is made of all the gold and all the silver, than when made up of either metal alone; and, therefore, for this reason, bimetallic money is more stable in buying power, and serves better as a standard of value.

3. Again, free coinage serves as a connecting link between the two metals. It matters not what causes conspire to raise or depress the value of one metal, the other serves as a check upon it. If, by diminished production or speculation, gold be raised in value above the coining value, the burden of the work of exchange is thrown on silver, diminishing the demand for gold and increasing that for silver, until gold is depressed and silver raised, the two meeting at the coinage ratio. Likewise, if gold be depressed below its coinage value, it then receives the burden of the work of exchange, until the two metals approach each other at the coinage par. This compensatory action is such in practice as to keep the metals approximately together at the coining ratio. While they may be rarely exactly together at that ratio for any length of time, the deviations are so slight that the dearer metal is rarely driven out of circulation.[1] The action is merely to increase the flow of the cheaper metal to the mint and diminish that of the dearer.

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[1] This statement is often denied by opponents of bimetallism; and they point for proof of their position to this country, which, they say, never did keep both metals in circulation at the same time. It is true that gold mostly disappeared from our circulation in the period from 1800 to 1834, while after that period silver quite as largely disappeared until 1878. But this fact is in no sense inconsistent with the statement made above. We attempted first to coin both metals freely at the ratio of 15 to 1, while France, a much greater nation then in financial importance, coined at 15½ to 1. An owner of gold could thus buy half an ounce more silver at the French mints, with an ounce of gold, than at ours; consequently gold went to the French mints rather than ours, as long as ~~silver~~ gold was so undervalued here. In 1834 we changed our ratio from 15 to 1 to 16 to 1, approximately, and then 15½ ounces of silver would buy as much gold at the French mint as 16 ounces would

This system of money has been sometimes called that of the double standard, a term that is susceptible of misconstruction by opponents of bimetallism, in the sense that it supposes two standards of value. The term, if used at all, should be construed as meaning one standard dependent on two metals. The terms "bimetallic standard" and "alternative standard" are less susceptible to such misconstruction.

4. The use of the two metals, as in bimetallism, gives the option to the debtor to pay in the cheaper of two metals; and this option makes it extremely difficult to control both by manipulation of the money market. It is found that combinations of capital can successfully work a corner on one metal or commodity; but, when it is attempted to work a corner on two simultaneously, it is done with much greater difficulty.

5. Most bimetallists advocate complementing metallic money with government paper notes, by which means the government may adjust the volume of money to business, thus preserving a steady and uniform range of prices. If governments were so to control the volume of money, the statute determining when notes should be issued and when withdrawn from circulation, in accordance with the quantitative law of money, the business of the money speculator would be destroyed, as well as his power to despoil the producer of wealth through the medium of exchange.

c. Symmetallism.— The term *Symmetallism* has been given to the sub-school of metallists who believe in uniting both gold and silver, in the same coin, in the proportions of their ratio of coinage. For example, our silver dollar now contains 412½ grains of standard silver, while the gold dollar has 25.8 grains of standard gold. Symmetallism would put into the dollar 206.25 grains of standard silver and 12.9 grains of standard gold, making a dollar of 219.15 grains of metal, about 16 parts silver to 1 of gold, by weight.

The advocates of this system claim for it that it would solve the question of concurrent circulation of the metals, and give us always an average dollar of silver and gold, no matter how widely the metals, as bullion, diverge in value. Of course, such a system would afford but a slight check upon the fluctuations in value of the metals, but in the dollar these fluctuations would be largely compensated. The chief objection made to the system is in the great expense required to change existing systems by recoinage. Again, the dollar could be easily counterfeited, it being about the size of the silver half dollar, and not easily distinguishable, by its weight or color, from a coin of pure silver. The system has not as yet been put to the practical test of use, though there can be no doubt of its practicability.

d. Correctionism.— The class of metallists denominated correctionists can scarcely claim to have attained to the dignity of a school, or even a subschool, of finance, since the theory has merely been suggested by certain writers on finance and has never been put to the test of actual use. Correctionism has been put forward by monometallists as a device

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at ours. And for this reason silver, which we undervalued, went to France; and gold, which was overvalued by us, went to our mints for coinage. Had this country adopted the French ratio, gold and silver would have circulated concurrently here as in France. In a conflict of ratios, France was able to enforce hers as against the rest of the world, and, at the same time, gave the whole world bimetallic prices.

to correct deviations in the standard of value, which, they say, bimetallists aim to correct, but which can not be corrected by the system which they propose. Correctionism has been suggested in England by Professor Marshall, Professor Jevons, and some other gold monometallists in Europe, and by their copyists in America. It has also been called the multiple standard. According to the advocates of this system, it would matter little whether gold or silver were the nominal standard; but since the great civilized nations have gold as a standard, they would not change it. Admitting the instability of gold in valuation, when compared to the general average of commodity prices, they would compensate the variation by legal enactment. They would assume, as the real measure of value for time contracts, a system of index numbers, representing the average of commodity prices, based on the market reports in the great centers of trade, and embracing a large number of staple commodities. By such a table of commodity prices, brought down to date by daily reports from the bureau of statistics established for the purpose, it would be easy to tell, for any two points of time past, by what percentage prices have advanced or declined during the interval. If prices have advanced, the law would increase the nominal amount, or principal, which the debtor must pay, by a percentage equal to the advance in general prices; and vice versa. To illustrate by example: A gives his note of $100 to B, drawing interest at 7 per cent. On maturity of the note, it is found by the tables of index numbers that general prices have advanced 2 per cent. during the time interval of the

note, from date to maturity. Then A must pay B, not only $100 principal and $7 interest, but two per cent. additional, a total of $109.14. On the other hand, if it be found that average prices have declined 2 per cent., then A takes a discount of 2 per cent., paying B $104.86. By this compensatory, or corrective, system the creditor is assured of getting his money returned to him of the same purchasing power as that which he loaned — no more and no less, the increase or diminution of the nominal debt in dollars exactly compensating the diminished or increased buying power of the dollar.

As to the practicability of such a system little can be said, except on theoretical grounds. There seems to be little doubt that such a system would succeed, if backed by an adequate bureau of statistics, recording faithfully wholesale prices of all great staples in all the great centers of trade. The masses generally would doubtless object to it, at first, on grounds of complexity. But, once in practice, this objection would disappear, since the correction for change in average prices could be computed as easily as interest.

A serious objection to the theory would be in the fact that, in practice, it would be merely corrective of time contracts between debtor and creditor, and have no effect on prices. The fluctuations of general prices would still continue with all their baleful influence on the wage of labor, the profits of industry, and, through these, on the welfare of the people.

CHAPTER XI.

THEORIES — THE FIAT THEORY.

THE various schools and sub-schools of finance, grouped under the two general theories mentioned at the beginning of the preceding chapter, are not all so widely different from each other. Indeed, if they be placed in a series, beginning with the extreme monometallists and ending with the extreme fiatists, each succeeding one will be found to differ not widely from that which immediately precedes, though each, as we pass up the series, will be found to place more and more creative power in the law. But those grouped together under the "Commodity Theory," and discussed under Chapter X, will be found to have this in common: that each treats commodity value, real value (by some designated by the misnomer "intrinsic value"), as an essential of money. On the other hand, of those grouped together under the "fiat theory," both hold that commodity value is non-essential to money, but that it is important that the value in money be in part or wholly potential.

2. The Fiat Theory.— The advocates of the *Fiat Theory* of money trace the source of all value in money to law: the law gives money its functions, and on those functions or uses its value depends. "The fiat of the law," they say, "is the power creative of money; and without money with its legally endowed functions, all trade degenerates into barter — a mere exchange of commodities." The fiat school of financiers is divided into two sub-schools, according as they believe in depriving money in part or wholly of commodity value. The one may be designated as *mixed fiatism*, and the other as *pure fiatism.*

a. Mixed Fiatism.— In the sub-school designated as *mixed fiatism* we may include all those fiatists who, while holding to the doctrine that the true source of value in money is in the law, yet believe it to be better in practice to use the precious metals in connection with other forms of currency (token coins and paper bills or notes), in which there is a small element or no element of commodity value. But in the use of the precious metals they differ from monometallists and bimetallists in that they would deny free coinage to all metals, including gold and silver. They would have the government purchase its bullion at market value, and coin as much as it needs at a fixed ratio. They would do with gold what the Bland-Allison act of 1878 did for silver,— give it only limited coinage, and thus cause it to circulate as coin at a higher value than the value of the bullion which it contains. They maintain that all coins should have a higher valuation as coin than as metal. The metallic money they would complement with paper, so adjusting the volume of money to the business of the country as to preserve the general level of prices from year to year. When it is found that general prices are declining, the government would pour more money into circulation, to cause a reaction and an advance of prices to their normal level; or, if prices be found to advance to the loss of the creditor, the government would retire credits from circulation to counteract the rise. "Thus," they say, "the government would have absolute control of general, or average, prices."

As to the practicability of a metallic fiat system they point to the Roman Empire, which had such a system in practice for more than 1,200 years. And during all this period the ratio of Roman coins never varied from that fixed by law; namely, 12 to 1. Again, they point to the earlier nummulary system of copper coins of the earlier commonwealth of Rome, by which system, for a long period, the money, consisting of copper coins, circulated at a valuation five times that of the copper which those coins contained. Indeed, nearly all the moneys of ancient states had a greater or less degree of fiat in them, in that the coins passed as money at a much higher value than could be obtained for an equal quantity of metal to that contained in the coins.

There are two principal advantages claimed for a mixed currency such as advocated by the mixed fiatists: First, it gives the nation complete control over its money, which, in a well-governed state, will be so regulated as to maintain its purchasing and debt-paying power uniformly the same. Second, if there be a danger to the State by which its life is threatened or its credit impaired, its coin money, having a commodity value, will have a value if the government fail; therefore, not so great loss is entailed on holders of money in the event of government failure, and not so great depreciations of money in case of impairment of government credit. They claim the advantages, without the disadvantages, of both commodity money and fiat money.

It may be remarked, in passing, that, regarding money as a development, it had reached the stage of mixed fiatism, in nearly all civilized nations of the world, when the dismemberment of the Roman Empire and the introduction into Europe of that Moslem institution, private coinage, from Arabia and India, destroyed money in its higher signification, and caused its degeneration to merchandise, and made it as uncertain in valuation as other commodities. This era of commodity money has not yet passed, though it is now apparent that it must soon be superseded by one of superior forms, in which there is a larger element of governmental control.

b. Pure Fiatism.— The *pure fiatists* hold to the view that money, to perform its functions easily and equitably to debtor and creditor, should be divested of all commodity value, to eliminate from it fluctuations of value due to fluctuations in value of the material from which it is made. To give money by law a potential value, by creating for it a money use only, and divesting it of all other uses, is to make its value most nearly determinate; and it would make such value completely determinate, were it not for irregularities and uncertainties in the demand for money due to the fluctuations in the volume of business transactions. The pure fiatists would completely divorce money from metal, or commodity, by demonetizing the precious metals, both gold and silver, depriving them entirely of their debt-paying power, except as might be with any commodity agreed upon by private contract. They would, indeed, prefer metallic money for small change; but they would give the preference to coins of baser metal, coined in limited quantities, as now in most countries, and made legal tender in small sums. The money having complete money functions in unlimited sums they would make of paper, in the forms of counters of higher and lower denominations. These would be made legal tender for all debts, both public and private. Such counters would not be made redeemable by the government in any other form of money; but their value would depend entirely upon the demand for them to pay taxes and other government dues, for the payment of debts, and the necessities of exchange.

The doctrines of the extreme fiatists have been held up to ridicule by many advocates of commodity money; and it is true that history does not give us many examples of a pure fiat system successfully operated for a long period of time. But its advocates can point to one system, practically a fiat system, maintained successfully for six and a quarter centuries. The Bank of Venice was founded as a government credit bank in 1171, A. D., and was in successful operation until the republic was overturned and the bank destroyed by Napoleon in 1797 — a period of 626 years. The main bank of Venice was a government institution, and received gold and silver on deposit, and used those metals in conducting foreign trade and the wars of the republic. The bank paid interest on these deposits, and, says Colwell in his "Ways and Means of Payment," "redeemed any amount which seemed superfluous, or beyond the demands of the public. This policy not only kept the bank fund at par with specie, but more than twenty per cent. above it. The bank was always open to further loans to the government when such

investment was demanded. The capital of the bank fluctuated in amount according to the wants of the people, and not according to the wants of the public treasury." These credits of the bank formed a currency in which all bills of exchange payable in the city of Venice were required to be paid. "They were legal tender for payments of every sort, both public and private. They were not subject to execution by the sheriff, nor incumbrance by mortgage; and from the combined advantages they were always at a premium over coin. The main bank never paid out coin or bullion, and there was no promise nor pretense that it ever would. The coin was used by the government in its various and numerous wars, in foreign countries, and among barbarous peoples, where paper credits could not be used. The coin and bullion, when deposited in the bank, were as much beyond the reach of the depositor as if they had been sunk in the ocean; they could never be recovered by him. The book credits rested entirely on the quality of legal tender. They were wholly and solely a fiat money, with no other basis in the way of redemption, except receivability in government revenues, and being legal and final payment of all debts between man and man." [1]

Again, say the advocates of fiatism, we have in practice in this country a system of fiat currency in our postage-stamp system. The postage-stamp is not legal tender for payment of debts, and, of course, would not circulate as money in large sums. Neither is it a promise to pay, and will not be redeemed in money by the government. For a two-cent postage stamp the government undertakes to carry a letter of certain weight to any post-office in the country. And this use given it by the law keeps the postage-stamp always at par with legal tender money. An extension of this system to paper money counters, they contend, given all money functions by law, must make a stable and equitable system of money, whose value or buying capacity will always be dependent on the ratio of its volume to the volume of business to be transacted, supposing the velocity of circulation to remain constant.

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[1] The quotation above is from a pamphlet, published by the Arena Publishing Co. in 1893, by Hon. John Davis, M. C., entitled "The Bank of Venice." From the same pamphlet we quote: "The demand for bank credits was incessant, and the deposits in the main bank continued to flow into the public coffers, as the demand for bank funds was usually greater than the supply. For a period of more than six centuries the bank continued to do business in a regular manner, through all the trials

In Chapters X and XI it has been attempted to give the main features of all systems of money, as advocated by the adherents of the various schools and sub-schools of finance. There can be little doubt that any one of the systems mentioned can be put into practise; and, indeed, nearly all have examples handed

down to us in history. The question to be decided in the art or practice of economics is not whether a certain system can be successfully operated, for that question has been settled in the affirmative as to all, unless it may be the symmetallist and correctionist systems. The question is, rather, what system of money will be least liable to fluctations in buying power, and will best insure equitable settlement of debts, both public and private — a system the most convenient, least expensive to maintain, and most uniform in its operation. A discussion of this question is reserved for consideration in another work.

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of peace and war, without a single break or panic; and it is said that there is not a line or word on record that any merchant or citizen of Venice was dissatisfied with their money system. No man ever lost a ducat by the closing of the bank doors in the face of the depositors.

The late Peter Cooper has recorded the fact that during his long business life in this country he had witnessed ten disastrous money panics, every one of them caused by the contraction or suppression of the currency. The financial system of Venice did not admit of contraction. The bank deposits increased with the growth of the republic, and with the increase of wealth and business of the city. Credits in banks were the money of business. Deposits once made could never be withdrawn. As there could be no contraction, there would be no panics. No safer, sounder, or more just and simple money system could at that time have been devised."

CHAPTER XII.

THE MONEY UNIT AND PRICE.

THE *unit of value* of money is generally thought to be the principal coin, in the denomination of which all values are expressed as whole numbers and fractions. In this country all values are expressed in dollars and fractions of the dollar, the coinage law making the dollar the unit. In France the unit is the franc; in England, the pound sterling. So each country has its piece, in the denomination of which all values are expressed in whole or fractional parts. However, in the sense of the measure of value, or, more properly, the standard of value, such a use of the term "unit of value," or "money unit," is misleading.

Value is a relation; and some writers on the subject of value have gone so far as to say that it has no measure — that there can be no such thing as a measure of value. But there are no philosophic reasons why a ratio may not be measured. In the science of mathematics, indeed, we are often required to compare and measure ratios; and in the differential and integral calculus we are mostly concerned in the comparison and measurement of ratios. The dollar of coin or paper is not a value, but it possesses a value, and we exchange it for another thing which we believe possesses an equal value. For the purpose of showing how price is dependent on the "money unit,"

or "unit of value," it will be discussed under two heads, the *real money unit* and the *numerical, or legal, money unit.*

The Real Money Unit, All Money.— From the discussion of Chapter IX, on the quantitative law, and a consideration of the formula there given, it is easy to see that the *real money unit*, considered as a standard measure, is *all money*. By that law we find, other conditions remaining the same, that, as we increase the quantity of money in circulation, prices go up; and that, as the quantity of money in circulation decreases, prices decline. All the money in circulation must effect all the exchanges. Then, if more money is put into circulation to effect the same exchanges, each piece will count for less in exchange, or prices rise. Likewise, when money is withdrawn from circulation, each piece will have more work to perform, will count for more in exchange, and prices go down.

Let us suppose the actual business of this country to be transacted by means of $1,000,000,000 in circulation. Then, on the average, each dollar will have a billionth part of the exchanges to effect; and one billion dollars measures the value of all the exchanges of the country for one week, supposing the velocity of circulation of money to be once in each week. Again, suppose the money in circulation to be reduced to $800,000,000. Then each dollar must effect the eight-hundred-millionth part of the exchanges; and the eight hundred million dollars now measures the value of the exchanges in one week. In each case all the money measures all the exchanges: the eight hundred million dollars in the one case measuring the same value — having the same value — as the billion dollars in the other. Thus the unit which measures the same value in every case is the sum total of all money doing the work of exchange.

This doctrine has been recognized by many eminent economists, among whom no higher can be named, perhaps, than John Stuart Mill. He says in his work on political economy: "The value of money varies inversely as its quantity." Again, in another place, he holds that the total sum of money — no matter howsoever great or small it may be — will always have the same value. The apparent contradiction in these two statements is to be found in the use of the word "money" in two different senses. In the first he means by money the pieces of a certain denomination, and this is in accord with the quantitative law that the value of each piece will be less as the volume, or quantity, of money increases. In the second statement he has in view the monetary unit, always representing the same value, other conditions remaining unchanged, designated "nomisma," by the ancient Greeks, and "*All Money*," by that most exhaustive and painstaking of all modern writers on monetary subjects, Alexander Del Mar. While "all money" is the invariable unit of measure, if we suppose velocity of circulation of money and the average yearly, monthly, and weekly exchanges to remain constant, it could not be an exact or invariable standard, if we introduce variations in the velocity of circulation of money and variations in the volume of exchanges. Then the invariable unit of measure — the standard — must be a certain fixed ratio between the volume of money, multiplied by its velocity of circulation, and the volume of exchanges to be effected. This deduction from the quantitative law holds true for a country of small area, and also for the whole world taken as one country. But when variations in the volume of money, the volume of exchanges, or the velocity of circulation are introduced, these variations produce their effect on prices in a short time, in a small country, in a longer time in a country of large area, or one having slow methods of intercommunication, and require years, perhaps, to produce their effect upon prices throughout the world.

The Numerical Unit of Account. — The real money unit, or all-money, is a valuable conception to a clear understanding of the way values are measured by money; yet we must have a *numerical unit of account*, by which accounts between individuals may be adjusted. Prior to 1873 the silver dollar of 371.25 grains pure silver was such a unit in the United States, as fixed by our coinage laws. The eagle of 232.2 grains pure gold was made the equivalent of ten units. Other coins were fixed either as fractions of the unit or as multiples of it. The dollar is in this country the *numerical unit of account*, or the *legal money unit*, fixed by the law of 1873 at 23.22 grains pure gold. But to make this single piece a measure or standard is to make a constantly variable thing a standard. Suppose the government fix the unit, or measure, as a gold piece of 25.8 grains standard gold. It then measures all values — is a certain standard. The government makes another unit just like the first; then the first has lost half its power — half its value — and the second is only equal to the first at its reduced value. A third is made; then each of the other two loses one third its value and the third is equal to each of the others only at this reduced value. To represent this measure as it is, suppose, as in a preceding paragraph, that the business of the country is transacted by means of $1,000,000,000 ; the real unit of value then is $\frac{1,000,000,000}{1,000,000,000}$. But, legally, we take one of these billion pieces and make our unit one billionth. Suppose, as before, the number of dollars is suddenly reduced to $800,000,000 ; then our real unit is $\frac{800,000,000}{800,000,000}$. By law we take one of these pieces as our unit, and we have as our measure one eight-hundred-millionth. So our standard unit is increased in buying power by twenty-five per cent. From this it appears that our legal unit of account is a fractional unit whose denominator is the whole number of dollars, and equivalents of dollars, in circulation.

It will be seen that price is merely the expression of value in terms of the numerical unit of account, or the legal money unit, and the same price at different times can express the same value only when that unit is invariable. An increase in the buying power of the numerical unit by twenty-five per cent. would find expression in a general decline of prices of twenty per cent ; or, a diminution in the buying power of the dollar of fifty per cent. would be expressed in prices by a general rise of one hundred per cent.[1]

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[1] For a more extended discussion of the "unit of money" the student is referred to Del Mar's "Science of Money," Chapter VIII.

CHAPTER XIII.

THE CIRCULATION OF MONEY.

MONEY is an instrument designed to facilitate exchanges. This we may call the sole positive function. There is also a negative function which must, by implication, be included in its definition. In order that money may not be the means of defrauding either the debtor or creditor, it must be a measure and a standard of value; and the only reason, it may be added, why money should be a measure and a standard of value, is that it may serve in its positive function with justice to all parties to the exchange. It can not directly effect exchanges, unless it pass from individual to individual in exchange for commodities: *Money, to serve its chief purpose, must be in circulation.*

It is the object of this chapter to discuss the conditions of the circulation of money. The first prerequisite of money, that it may circulate, is that *it shall be good.* By "good money," as used here, is not meant money of greatest or increasing purchasing power. Indeed, such money may be, and generally is, the poorest money, for the reason that it but poorly performs its functions. By "good money" is here meant such as the people have confidence in; such that, if one person accepts it in payment for a debt, he believes he can use it to-morrow, or at any time in the near future, to pay an equal debt, and that it will have practically the same purchasing power when he wishes to expend it as it had when he received it. The wildcat money of antebellum days was not good, for the reason that there was the greatest uncertainty whether, if the creditor received it, he could use it again. So, also, was it with the continental money, the Confederate money; and to a less degree was it true of the "greenback" in the period of its rapid decline, during the struggle of the great Civil War. However, the lack of confidence in the "greenback" never was sufficient to interfere with its circulation. People always believed that they could use the "greenback" as money for effecting exchanges, though it would buy less to-morrow than to-day. The fact of its depreciation, or decline in purchasing power, served to accelerate the rapidity of its circulation, by opening up great and numerous opportunities for increase, or profit, in the continued advance of prices.

Again, it is evident that great facilities for intercommunication favor rapid circulation of money; and the improvements in recent years, in railroads, steamboats, telegraphs, and telephones, have added greatly to the rapidity of the circulation of money, and, consequently, to its efficiency. The actual rapidity of the circulation of money is a problem which can not be solved, with exactness, in the present state of our knowledge; yet it may be approximated with some degree of accuracy. Alexander Del Mar, in his "Science of Money," estimates the velocity of circulation in this country at once a week[1] for the whole country, and that this velocity is double what it was

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[1] By this is meant that a quantity of money changes hands in one week equal to the total volume of money in circulation.

one century ago, the efficiency of money having been doubled in a century.

Let us next inquire, what conditions would induce men to withhold money from circulation?

First, if money were increasing in purchasing power, and that increase in valuation were greater than the interest which the holder could get on loans, less the average annual loss of principal by failure of the debtor to pay, the shrewd holder of money would hoard it — withhold it from circulation — because there is the greatest gain to him in so doing. And the more rapidly money appreciates, or, what is the same thing, the more rapidly general prices decline, the more will money be thus withheld from circulation by hoarding.

Again, if there be two kinds of money in circulation, one thought to be better than the other, or such crisis arise as to beget a belief that one will in the near future be better than the other, then people will hold the money thought to be better, leaving the other to do the work of exchange. This principle has been referred to by H. D. Mc Leod as Gresham's law; and many recent writers have so referred to it, attributing the formulation of the principle to Sir Thomas Gresham, a financier of England in the time of Edward VI, in the sixteenth century, when he stated in a correspondence, as to Edward's continued clipping of his coinage (putting less and less metal in his coins) that, "bad money drives out good." It is, however, a principle which has been made use of by tradesmen throughout the whole historic period of the world; namely, to pay a debt with the smallest value permitted by law, and hold the greater value for some use which will yield its owner a greater return than could be realized from it by its use in the payment of debt. Thus gold and silver go into hiding in times of national danger. The national credit being impaired, paper substitutes for gold and silver money, being lowered in buying power, take the place of the precious metals in effecting exchanges. As to gold and silver, people know that they will have a commodity value, if the government fail, while paper notes might become worthless. It is sometimes contended that gold and silver are better money in times of national peril than any other which can be devised; yet the history of these metals shows that they always flee the country or disappear in hiding in times when the national government is imperiled, leaving paper money to do all the work of exchange. We may formulate the following propositions as to the unrestricted circulation of money:—

First, That money may circulate most freely, it must be good money, in the sense of money in which the people have confidence as to its purchasing and debt-paying power.

Second, All kinds of money must be made equally good, as far as can be effected by legislation and government policy, and it must not appreciate, or increase in purchasing power.

As a corollary to the preceding principles, it may be said that, when public distrust prevails as to the power of debtors to pay, or of promoters of industry to establish paying businesses, men withhold money from circulation. But these times, characterized by "lack of confidence," are times when percentages of losses are so large as to wipe out ordinary rates of interest; they are also times of great decline in prices, or of appreciation of money. The holder of money will then lend only on what he calls "gilt edge" security, where two, three, or even four dollars' worth of property is liable to be taken by one dollar of debt. When prices are rapidly shrinking, the creditor must have so large an excess of value in property held as security, over the amount of money loaned, that all shrinkage shall fall on property and he be able to collect his debt at its continually increased buying power, or, in default of payment, take the property held as security.

It is easy to see, without argument, that there would be no incentive for men to hoard money when prices are stationary; when business enterprises prosper, and when men engaged in them are able to pay; when confidence is restored; or when prices are advancing. At such times men let go of money as soon as they can see favorable investment opportunities—those promising a fair and sure return. Bond and mortgage securities are then less in demand, and the promoters of manufacture and other industries can give the money loaner the best return in interest on his money. It may be added here that, while stationary prices promote healthy business enterprise and thrift, advancing prices, especially if they be rapidly advancing, give business a stimulus which may prove dangerous to investors, by inducing them to invest in visionary and unprofitable undertakings. While advancing prices favor rapid circulation of money, such a condition, if extreme, may prove unjust to the creditor classes, by requiring them to take in payment money of smaller buying power than possessed by that which they loaned. Moderately advancing prices, however, work no injury to the creditor, since the increased rate of interest paid him, the better condition of debtors financially, and the continued and complete employment of capital more than compensate him for a slightly diminished buying power of the money returned to him in the payment of debt.

When two or more countries have in use a metallic system of money, where one or both metals circulate at the commodity or bullion value of the metal in them, those countries are connected by a link which causes them to share, to a degree, each other's prosperity or disasters. This is effected by the operation of the principle of the *overflow of money*. If for any cause money in one country becomes more plentiful than in others, prices advance, and money buys less in that country than in others. Then holders of money seek abroad a greater return for their money — since money will buy more abroad than at home — and so importations of goods are increased and the exportation of metallic money continues until an approximate equilibrium of prices is restored by a diminution of the money volume at home and an increase of the money volume abroad. For this reason a business panic which affects one gold standard country must by sympathy affect all. So, likewise, an era of advancing prices and prosperity in one must, by the overflow of money, affect all. All tables of index numbers showing the trend of prices in periods of the past furnish ample proof of the approximate parallel movement of prices in countries using the same metallic standard of value.

But when a country has a money system entirely

under government control, and circulates all coins at a valuation considerably above that of the metal contained in them, that country is unaffected by the principle of overflow of money. In fact, the principle can not operate until the valuation of the country's coins decline to their commodity or bullion value. Thus American and French silver coins are not exported, for the reason that there is no place where they will circulate at so high a valuation as at home. But gold, which circulates in all gold standard countries as coin at the commodity or bullion value only, is shipped from one country to another in coin or bars indiscriminately. This by some is imagined to be an advantage, in giving what is termed a universal money; but it is in fact a disadvantage to all except the great holders of money and credits. It gives to a few men the power to raise or depress prices, not merely in one country, but in all countries circulating metals as money at their commodity valuation. An international money, for this reason principally, is most undesirable. A country can best protect its citizens by establishing a system of money entirely independent of the systems of other countries, and by settling all international balances with commodities, including gold and silver bullion, but holding and maintaining all its money at home.

CHAPTER XIV.

ANALYSIS OF INTEREST AND ITS LAW.

INTEREST is money paid for the use of money, or for the use of money to be paid for property sold and payment deferred. It is estimated at a percentage annually on the sum loaned, or the face value of the evidence of debt. There is much misapprehension by the popular mind as to the relation between rates of interest and the value, or purchasing power, of money. The general impression prevails that the rate of interest means the value of money. This impression has doubtless been produced by the common use of the term "worth" in speaking of money. In commercial transactions it is rarely, if ever, necessary to speak of the worth of money in the sense of its buying capacity; on the contrary, the worth of all other things is expressed in terms of money. But, with regard to money, the term "worth" has been commonly used in a very different sense from that understood when we speak of commodities. When we ask the question, What is money worth? we do not generally mean what or how much of commodities it will buy; but we mean, rather, what is the rental of money, not sold, but loaned, and to be returned at a certain time. It is not the money itself upon which the estimate of worth is made, but it is the money use, which has no fixed or necessary relation to the value of the thing loaned. The causes, therefore, which enter the rate of interest as determining factors, differ from those which enter the value, or purchasing power, of money. It will be the object of this chapter to discuss the conditions which control the rate of interest, and analyze it by finding its various causes.

1. The first cause which enters interest is the margin of profit in business. If profits in business are declining, or have become nil, men will not borrow money with which to carry on business, and for this cause the demand for money will cease, except for purposes of exchange, and interest vanishes — a condition not reached in practice. But, as profits in business increase, men "reach out," attempt to increase their business by borrowing. If there be one loaner and two borrowing manufacturers, the one of the latter who makes the largest margin of profit will get the money, other things being equal, because he can bid higher than the other and still make a margin above the interest paid. But manufacturers prosper and increase their business most when prices are rising, for they then see before them the largest profits. Such times are times of actual decline in the value of money; but, from the cause here under consideration, they are attended by a rise in interest rates. And the converse is also true, that a fall in prices is usually attended by a fall in interest rates. This would be always true, if the "margin of profits" were the only element determining the interest rate.

It matters not what the nature of the business is, if it requires money, and pays a large margin of profit, it affects the rate of interest on money. As another illustration, let us consider land speculation. In new countries, as the population increases, the potential value of land rises. Each holder of land desires to buy more, that he may profit by the rise. As a consequence, interest rates in new countries range much higher than in those which are approaching the limit of their population, because of the great demand for money to invest in land. In rapidly growing towns and cities the rise in real estate is often so rapid as to be out of all proportion to the growth in population, anticipating it many years. The town is then said to be "on a boom," and rates of interest are correspondingly high. In many of the new Western States of the Union rates of interest have been maintained at ten, twelve, or even fifteen per cent., when in the older Eastern States the prevailing rate was five or six per cent.

2. A second cause tending to increase the rate of interest is the risk of the non-payment of the principal. If, on the average of a certain class of loans, it be found that two per cent. of the money loaned is lost by failure of the debtor to pay, an insurance of two per cent. must be added to what would be otherwise the net rate of interest due to profits in business. This risk is difficult of determination, as it varies greatly with location and the class of loans made. On government bonds the risk is now regarded as practically nothing, and such paper, therefore, bears the lowest rate of interest. On state bonds it is something, and rates of interest paid on them are higher. On municipal and corporation bonds it is still greater; and on real estate mortgages, a degree greater; while on chattel mortgages and personal notes and accounts it is the greatest of the commercial evidences of debt. By statistics gathered

through a series of years, and often by a "commercial instinct," money loaners discover about how much they must add to the net rate to insure them against losses. This element is greater in new and growing sections of the country, and contributes to their increased rates over those of older sections.

3. Taxes on money and loans must be added to the net rate. The loaner of money must pay this tax, and, to "recoup himself," he must collect it from the borrower in addition to the net rate of interest.

4. Again, loaners of money must add to the net rate another charge to cover cost of superintendence, and legal and other expenses of maintaining a loaning business.

5. Finally, the increase or decrease of the purchasing power of money, apart from other causes, is an element in determining the rate of interest. Suppose that prices are stationary and the interest rate is fixed, by causes already considered, at six per cent. Again, suppose all causes to remain uniform in action, except that an era of declining prices sets in at an annual rate of decline of two per cent. Each year the purchasing power of money is two per cent. greater than the year preceding; then, if the money loaner get four per cent. nominally on his money, he gets two per cent. in increased purchasing power, and he gets as good a return for the money loaned as at six per cent. under stationary prices. Or, on the other hand, if prices are advancing at the rate of two per cent. per annum, it would require a nominal rate of eight per cent. to give him the same return as six per cent. under stationary prices. Thus, the tendency of decli-

ning prices is to lower rates of interest, and advancing prices to raise it. It is not to be supposed that the borrower gets all the advantage of a reduced rate due to declining prices, nor does the loaner entirely recoup himself by an advanced rate of interest under rising prices. Just how great a portion of the increase in purchasing power of money goes to the creditor, it is not possible to tell, but it is probable that he gets upwards of one half of the appreciation — that he would be the gainer by one per cent. or more from an appreciation of two per cent. in money. But, under rising prices, it has been assumed by some that the creditor gets back in the increased total of interest collected, sufficient to compensate him for the diminished purchasing power of money. Adding to this cause under consideration the stimulating effect of advancing prices, increasing the margin of profits, he is doubtless fully compensated.

If we suppose the interest rate on real estate mortgages to be six per cent., the analysis of the rate and apportionment to different elements would be approximately as follows : —

1. Net rate due to profits on business,	+ 2¾ per cent.
2. Risk on real estate loans,	+ 3 "
3. Taxes on money loaned,	+ ¾ "
4. Cost of maintaining loaning business,	+ ½ "
5. Lowered rate of interest due to appreciating money,	— 1 "
Algebraic total,	+ 6 Per cent.

Or, again, suppose the banking rate of interest to be eight per cent., the analysis would be about as follows : —

1. Net rate due to profits on business,	+2¾ per cent.
2. Risk on loans with personal security,	+4 "
3. Taxes on banks and money loaned,	+ ½ "
4. Cost of business, salaries, etc.,	+1¾ "
5. Lowered rate of interest due to appreciation of money,	—1 "
Algebraic total, or gross rate,	+8 per cent.

The analyses above given are but rough approximations, as no exact figures can be given. The elements entering the gross rate vary with the locality and the time ; and, further, no reliable statistics have been tabulated from which the exact power of each element can be estimated. They are here given to show in what manner each of these elements enters to affect the rate of interest.

From what precedes, we may formulate the law of interest as follows : —

The rate of interest on money increases or decreases with the increase or decrease of business profits, risks, and taxes on loans, and the cost of maintaining loaning and fiduciary institutions; and declines with falling prices, or as money appreciates, and vice versa.

CHAPTER XV.

ACCOUNTS AND PROMISSORY NOTES—THE CREDIT SYSTEM.

An important element of the volume of circulation of money, as estimated for the purpose of determining the ratio of money to business, is *credit*, or *accounts* between individuals and firms and *promissory notes*.

If a farmer turns over $300 worth of his products a year to the merchant, and the latter gives him goods to the same amount in value, then, if they pass receipts on looking over accounts, exchanges to the extent of three hundred dollars have been effected without the use of money. Again, if the merchant do a business of $20,000 a year, $15,000 of it being represented by debit charges against his customers and credits for produce to the same extent, then seventy-five per cent. of his business is effected by accounts, without the use of money. Credits have displaced money to that extent, and the result upon prices is the same as though sufficient additional money had been thrown into circulation to effect these exchanges, and to that extent credits have become a substitute for money.

The promissory note performs a like function, to the extent that it is used. A buys a horse of B, giving his note for $100; in the purchase of a carriage,

B turns it over to C; C turns it over to D for merchandise; D, to E for flour; and, finally, E presents the note to A for payment, and it is paid in wheat. Thus five transactions of $100 each have been effected, and all debts paid by use of A's negotiable note. Here, too, credit has taken the place of money, and the result is to leave money free to effect other exchanges — an effect on prices equivalent to increasing the volume of money. The efficiency of credit, so to effect exchanges, depends upon the general belief among A's acquaintances that he will pay his note in money or an equivalent.

In modern times the *credit system*, as the general use of accounts and promissory notes has been called, is a large factor in the transaction of business. Manufacturers extend credit to wholesale dealers, wholesalers to retailers, and retailers to their customers. The percentage of business transacted through credit varies with the time and location; but it is always a large percentage of business done, balances only being settled with money or bank check. The limitation of credits, by account or note, is to those men who are known to the creditor, who have established a credit by prompt payment of bills, and who are reported favorably by commercial agencies — a credit based on integrity and the amount of visible assets from which collection can be made by process of law. The success of the credit system, therefore, depends largely upon business integrity and legal responsibility. Risks to creditor are necessarily large, and increase with great rapidity in times of business depression, when the debtor's power to pay is curtailed. For this reason, credits are a dangerous element in the money volume. When, for any cause, credit is withdrawn, it has within itself the power to aggravate that cause. For example, a large business failure arouses distrust in other concerns, and credits are to a certain extent limited or withdrawn; this withdrawal has the effect of contracting the money volume, and prices are given a downward trend; the ability of debtors is generally lessened and business failures increased; increased business failures increase the general distrust, and credits are still further withdrawn,—thus going on in increasing cycles, until some cause intervene to restore prices and "confidence."

Because of the evil above referred to, the credit system has been condemned by some economists as inflicting upon the world periodical times of business depression, known as panics, entailing great loss and suffering upon the masses of people constituting the business and industrial world, upon whom the injurious effects must largely fall.

CHAPTER XVI.

BANKING.

As money has been developed from barter and greatly facilities exchanges by the use of an intermediate value between commodities, into which the value of all commodities may be converted; so *banking* is an outgrowth of accounts, which greatly facilitates exchanges effected by the credit system, by the cancellation of debts.

If there be but two persons in account with each other, they may cancel an equal debt which each owes the other, but the balance must be paid in money on settlement, or by promissory note. If there be three persons in account with each other, the matter of settlement may be simplified by the cancelation of balances. For example, A owes B a balance of $100. B owes C a balance of $100, and C owes A a balance of $100. In this case, if each cancels the balance due him, all three debts would be paid without the use of money, as each would be in the same situation financially as he would be were $100 to pass from A to B, B to C, and C to A—equivalent to a circulation of $300 in money, reduced to one transfer. If A owe B $100, B owe C $75, and C owe A $50; then if A pay B $25, and to C $25, all debts would be settled the same as though each were to pay the other the total debt owed; or the payment of $50 pays debts of $225. If the number be increased to four persons in account with each other, the matter becomes more complicated, in that there will be twelve accounts now instead of six, as in the case of three persons, and two, in the case of two persons in account with each other. If the number be increased to five persons, each in account with every other, the number of accounts will be twenty; in the case of six, thirty; in the case of seven, forty-two, etc. Now if each person keep account with one other, the banker, who keeps account with all, the payment of debt is greatly facilitated; for then the debtor pays by drawing an order upon the banker in favor of the creditor, and the banker transfers the amount on his book from one account to the other. It is easy to see that, in case each person in account with the bank drew checks equal in volume to that of deposits made by him, the business of the patrons of the bank would be conducted without money, by a system of bookkeeping of the banks with their patrons and with each other. But as this condition never exists, even approximately, a certain amount of money must be kept by the bank to pay the demands of depositors; and, in practice, banks receive on deposit checks, drafts, bank notes, U. S. notes, and specie, and pay out specie, U. S. notes, or bank notes, on demand of their depositors. For the purpose of meeting these demands, they keep from fifteen to twenty-five per cent. or more of their deposits in their vaults, in what passes current as money — specie, U. S. notes, and bank-notes.

From the foregoing it will appear that banking is an important factor in effecting exchanges, filling the place of what otherwise would require a large volume

of money. To illustrate: Suppose a bank to have on deposit $1,600,000 in money and that it holds $400,000, loaning out $1,200,000; this money we will suppose is deposited in a second bank and $900,000 of it loaned out; the borrowers deposit this money in a third bank, and $675,000 of this sum is loaned out to borrowers. In these three banks we have an aggregate in deposits of $3,700,000, besides $675,000 in money loaned to borrowers and in circulation, a total money volume, for the purpose of effecting exchanges, of $4,375,000. The depositors draw against the $3,700,000,000 bank credit as if the cash were on deposit and in the bank, when only twenty-five per cent. of that amount is actually held in the bank vaults. There is even less than that held, since banks are allowed to count as reserve what they have deposited in other banks. By the multiplication of this process until all money is held as reserve in bank vaults, the credit circulation of banks would be four times the volume of money, supposing the reserve for protection of depositors to be twenty-five per cent. But it is generally true that the total amount of money held in the bank vaults is but one sixth or less. In such case, if banking were extended till all money were held as reserve, the volume of bank credit circulation would be six times the money. This illustration is given to show how bank credit is multiplied in practice to several times the circulation of money.

But the circulation of credits is much slower than that of money, and is estimated by Alexander Del Mar at about once in twenty-eight days, or one-fourth the velocity of money. The same author estimates the total efficiency of all credits in exchange to be approximately equal to that of money volume. In other words, if there were no credits and the money volume doubled, exchanges would be effected with the same facility as now, and the range of prices remain unchanged. In the United States there are two principal systems of banking — *National* and *State* systems.

The National Banking System.—The system of banking known as the *National Banking* System was created by the act of congress of Feb. 25, 1863. Such banks are banks of issue, of deposit, exchange, loans, under the supervision and control of the Comptroller of Currency. They are allowed to issue notes payable on demand to the extent of ninety per cent. of their capital stock, which notes are secured by a deposit with the United States Treasurer of U. S. bonds to the extent of ten ninths of the issue, reckonng bonds at their par value. Banks are not required o deposit bonds to the full amount of their capital stock, but must deposit at least twenty-five per cent. of their capital stock in bonds. The notes of national banks are not legal tenders, but are "receivable at par in all parts of the United States in payment of all axes and excises, and other dues to the United States except duties on imports; and, also, for salaries and other demands owing by the United States to individuals, corporations, and associations within the United States, except interest on the public debt." As to deposit, exchange, and loans, they are like, or similar to, other banking systems, except that certain restrictions are placed upon them by law, and by orders from the treasury department. They displaced the old State banking systems as banks of ssue, principally because of the tax of ten per cent. levied on State bank circulation, and also because of the security given to the note holder for the ultimate payment of the notes of national banks, whereas the State bank circulation was not secured, and a failure of the bank meant loss to the note holder.

The State Banking System.— State banks of the United States are not now banks of issue, but are confined in their business to exchange, the sending of money to distant points by means of drafts, or bills of exchange, based on accounts which banks keep with other banks at trade centers; to the receiving of deposits on time, for which they pay interest, or on account subject to demand check; and to making short-time loans of thirty, sixty, and ninety days. In many cases State banks, also, make loans on long-time real estate mortgages.

Postal Savings Banks.— The system known as *postal savings banks* is one which has never been adopted in this country, though in successful operation in several European countries. It consists in attaching to the post-office department a savings bank department, from which the government will issue certificates of deposit, bearing a low rate of interest, and transmit sums of money from one point to another by the money-order system, similar to that now in operation for the transmission of small sums of money. The system has gained great popularity in England, where it was introduced in 1861. It is valuable both as a means of transmitting values, thus facilitating exchanges, and in affording to holders of money in small sums a low rate of interest and a safe depository, yet the deposits of which may be drawn on demand.

SYNOPSIS OF THE MEANS OF EXCHANGE.

- Means of Exchange
  - Transportation as a Means of Exchange
  - Money
    - Definition, Origin, and Functions
    - The Quantitative Law of the Value of Money
    - Theories of Money
      - Commodity or Mercantile Theory
        - Monometallism
          - Definition
          - Gold Monometallism
          - Silver Monometallism
        - Bimetallism
          - Definition
          1. Convenience of having two classes of coins
          2. Compensating effect of two metals
          3. Free Coinage a connecting link preventing divergence in valuation
          4. Option to debtor to pay in the cheaper of two metals
          5. Allows government control of Money
        - Symmetallism — alloys of Silver and Gold at a fixed ratio
        - Correctionism — by average Prices
      - Fiat Theory
        - Mixed Fiatism
        - Pure Fiatism
    - The Money Unit and Price
    - The Circulation of Money
    - Analysis of Interest and its Law
  - Accounts — Effect Exchanges by Cancellation of Debts
  - Banking
    - Effects Exchanges by Cancellation of Debts
    - The National Banking System
    - The State Banking System
    - The System of Postal Savings Banks

CHAPTER XVII.

LAWS OF EXCHANGE.

THE primary reasons for exchange are two: First, the limited capabilities of man make it difficult for him to supply all his wants, unaided by his fellows. This imperfection, or limitation of his powers, gives rise to co-operation, division of labor, and exchange, as the most economical methods of supplying wants, — the means of supplying them with the least labor. Second, imperfections of countries, the failure to come up to the standard of the complete productive unity,[1] make it more economical for each country to produce only such utilities as it can produce with greatest facility, and exchange these products for others which may be produced with highest facility in other countries.

From a consideration of the chapters on trade it appears that a wealthy country, having smaller facilities for a certain production, may, by destructive competition and monopolization, prevent a poorer country from producing the utility which it has greater facilities for producing, thus forcing an exchange which would not be economical and profitable for the poorer country under conditions of free competition. Monopoly may thus cause the poorer country to buy of it what the country could more cheaply and profitably produce for itself, were monopoly destroyed. Again, one country, by levying high duties on imports, or by paying bounties on production, may foster and build up industries which would be unprofitable under free competition, with duties and bounties removed. What is said of different countries applies, also, to states and sections of the same country, and to industries in them. These conditions, produced by concerted action of men, or by law, may force exchange into what may be termed artificial channels. But whether exchange exist under the first two natural conditions or under the forced, artificial conditions mentioned, it is determined by the condition of profit to tradesmen. And further, it is evident that exchange, whether profitable to the whole people, as when it exists under natural conditions, or profitable merely to tradesmen, when due to the operation of artificial causes,— monopoly, bounty, import duties,— is a frictional element of material prosperity, like transportation, and any mechanism which will facilitate it, reduce to a minimum the labor involved in it, or reduce exchange itself to a minimum, other conditions remaining the same, will be a favoring cause in promoting the highest material prosperity. We may therefore formulate two laws of exchange, as follows : —

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[1] See Book I, Part I, Chapter IV.

1. Under natural conditions of trade, the greatest freedom of exchange, or trade, and causes which promote the greatest rapidity and facility of exchange, are conditions which favor the highest material prosperity.

2. If deflecting causes, as monopoly, bounties, or duties, be introduced into the problem of exchange, then, as before, other causes which promote the greatest rapidity and facility of exchange, are conditions which favor the highest material prosperity.

It may, perhaps, be pertinently asked whether the first law does not express the conditions of highest material prosperity, as to exchange, and show that such causes as monopoly, bounties, and duties are hindrances to progress toward the highest material prosperity. It is doubtless true that the deflecting causes mentioned are, in fact, hindrances to material prosperity, and, could they be eliminated from the problem of exchange, the people of all countries would be benefited. But aggregations of capital in one country first destroy competition by selling at a low price, perhaps at a loss, until competition disappears, and then raise prices to the detriment of other countries, which are thus forced to buy at exorbitant prices. Then the only redress the injured countries have is to pay a bounty on production or levy import duties as compensating causes. Thus it appears that the deflecting causes are beyond the control of any one country, and at the present time international and domestic trade are greatly influenced by them.

Besides import duties, which are often made use of by nations as corrective or retaliatory measures, levied as a protection against the monopolistic aggressions of foreign capital, and incidentally for revenue, there are several other restrictions to trade and exchange, whose influence upon material prosperity is wholly destructive.

First and most important of destructive restrictions to exchange, and forces destructive of material prosperity, may be mentioned the contraction of the currency, or the money volume as measured by its ratio to business. The chain of causation is about as follows: Contracting money volume produces a decline of prices; decline of prices diminishes the profits of industry and increases the burden of debtors; diminished profits to industry and increased burden of debtors increases bankruptcy of industrial institutions, forces wages to a lower level, and produces poverty of the masses; bankruptcy of industrial institutions and poverty of the masses destroy markets, by depriving consumers of the power to buy, and further reduce prices; and so on, in an ever vicious circle, until a paralysis of all lines of business results, or some fortuitous circumstance, or legislation, starts the movement of prices upward.

A second institution destructive of material prosperity is the trust, or monopoly of accumulated wealth. It seeks to unite all institutions of a particular line of industry under one management, forces all industries in competition with it to sell their business at a great loss, or forces them into bankruptcy by destructive competition, until it controls its line of manufacture or trade. It then fixes prices at such a range as will satisfy the cupidity of its promoters and stockholders, being limited only by an occasional capitalist who ventures into competition, forcing lower prices for a time, but only to succumb at last. The masses of people thus pay tribute to these industrial monarchs as helplessly as though the taxes were farmed out by authority of an absolute sovereign, and collected at the point of the sword. Trusts are institutions which have increased rapidly in number and power during the last three decades, and now threaten to reduce the whole population of this country to two classes, millionaires and industrial slaves.

Like the great manufacturing trusts, transportation companies unite, destroy competition, and fix the rates of transportation. They stand at the gateways of commerce, and levy tribute from all who pass, as did the medieval barons from all who came within the reach of their predatory hordes. The trusts, monopolies, transportation companies, and money kings do now peaceably, under the sanction of the law, what was formerly done by violent means at the command of the feudal lord.

A fourth restriction on trade, affecting material prosperity through exchange, is war. The effect of a war of one country with another is to increase the difficulty of international trade, depriving the people of each country of low-cost foreign commodities, and to throw trade and industry into channels that would be unprofitable in times of peace, increasing the cost of living, not only in monetary units of price, but in units of labor also. Likewise, an internal or domestic war blocks trade and exchanges at home, and similarly increases the cost of living.

The causes mentioned in this chapter are mentioned here more especially with reference to their effect on material prosperity through exchange. They are causes which also affect prosperity through distribution and consumption, and will receive further consideration in appropriate chapters of the books on distribution and consumption.

SYNOPSIS OF CHAPTER XVII.

LAWS OF EXCHANGE
- Primary Causes of Exchange
  - Limited Capabilities of Man
  - Imperfections of Countries, or Deviations from the Complete Productive Unity
- 1. Trade under Natural Conditions
- 2. Trade under Artificial or Forced Conditions
- Destructive Restrictions
  - Contracting Money Volume
  - Combinations of Capital, or Trusts

BOOK III.

DISTRIBUTION.

BY *Distribution of Wealth*, is meant, in economics, the distribution to each individual member of the State of his actual or equitable portion of the total wealth produced. The accepted principle of equity demands that to each producer shall belong the wealth which he produces; but the use of co-operation and division of labor, as productive means, and of the exchange of commodities, renders the problem of determining each producer's equitable share of the wealth produced a difficult one. The socialistic view of equitable distribution is that all producers place their productions into one common fund, from which all draw equally, or in accordance with their several needs. The more prevalent view is that each individual should draw from the fund of wealth produced, in proportion to his service in producing it — that reward of service should be in proportion to efficiency of service. Without discussing the merits of these views, it will be sufficient to say that the socialistic view has as yet been nowhere extensively adopted in practice, and nothing can with certainty be said for or against it, except on theoretical grounds. The common view, upon which society is now based, when carried into practice by existing means of distribution, and through existing modes, does not distribute to each individual his equitable share, but the distribution seems to be more in accord with the principle that the reward of wealth should be given in proportion to the strength, mental and physical, and the greed of the individual members of society. In order to arrive at a remedy for the existing inequitable distribution of wealth, it will be necessary to analyze the present *modes* and *means* of distribution, and to formulate its laws. The following outline will assist in obtaining a comprehensive view of the subject: —

SYNOPSIS OF BOOK III — DISTRIBUTION.

- DISTRIBUTION
  - Preliminary to Book III on Distribution
  - Modes
    - 1. Equitable
      - *a*. Reward of Labor in Wages
      - *b*. Reward of Capital in Profits
      - *c*. Gifts to the Needy as Charities
    - 2. Inequitable
      - *a*. Return of Land Potential in Rent
      - *b*. Return of Patent Potential in Royalty
      - *c*. Return of Money Potential in Interest
    - 3. Despoliatory
      - *a*. Spoliation by Increment of Debt
      - *b*. Spoliation by Increment of Speculative Value
      - *c*. Spoliation by War, Gambling, and Crime
  - Means
    - 1. Proximate and Direct
      - *a*. Competition
      - *b*. Benevolence
      - *c*. Legislation
      - *d*. Business Acumen
      - *e*. Deception
      - *f*. Monopoly
      - *g*. Stealth
      - *h*. Violent Spoliation
    - 2. Remote and Indirect
      - *a*. Transportation
      - *b*. Credit
      - *c*. Money
    - 3. Application of Means to
      - Wages
      - Profits
      - Rent
      - Royalty
      - Interest
      - Debt
      - Speculation
      - Spoils of War
      - Spoils of Crime
  - Laws of Distribution of Wealth

CHAPTER I.

MODES OF DISTRIBUTION, DEFINED AND CLASSIFIED.

1. Equitable Modes of Distribution.— In the last analysis of the *distribution of wealth* it will be found that there are but two equitable modes; namely, the *reward of labor* and the *gifts of benevolence*. It may be laid down as an ethical postulate, "If a man will not work, neither shall he eat;" or, if a man be able to perform a valuable service to society and will not, society owes him nothing. By his act he puts himself without the pale of human justice into the rank of inferior animals, and he has no rights of property or liberty of action which men are bound to respect. Within the first mode must be included the reward of capital in profits; since capital is but labor of the past, and must be referred back to the individual who produced it. But, for convenience in treatment, reward of labor and reward of capital will be considered as separate modes.

a. Reward of Labor in Wages.— The laborer performs a service which aids directly or indirectly in the production of utilities and real values. This service may not, and generally does not, complete a process of production; and this fact, with the diversity of wants and individual limitations in production, necessitates the pooling of products, and that each producer draw from the fund his share as wages. Under the term "wages" must be included not only the wage of industrial labor, but also the fees of professional men, the salaries of government officers and employés, and of the promoters of industry.

b. Reward of Capital in Profits.— It is not easy to separate wages from profits, to tell where the one ends and the other begins. A laborer who has but his naked hands is limited in the kinds of service which he can render; if he have a spade, shovel, and an ax, his field of labor will be widened and his efficiency increased; if he have a span of work horses, his efficiency is increased to a still greater degree; and if he have a full set of farming implements, his power in production will be still more greatly increased, and he can, therefore, command a much higher reward for his capital. That portion of reward due to the use of his capital, the excess above the wage he could command without capital, is classified as profit. And if his capital extend to the ownership of a large manufacturing plant, with buildings and machinery, requiring a large force of workers to operate, his reward may be so augmented that it is many times what he could without capital draw from society as wages. If we reason from the principle that the individual worker in society should be rewarded in proportion to his efficiency in rendering services of value to society, then in profits we find an equitable distribution of wealth, in theory, though in practice, through the operation of certain means, it is often inequitable. The inequitable portion of profits will be considered under the *inequitable and despoliatory modes.*

c. Gifts to the Needy as Charities.—The altruistic sentiments of humanity lead men to recognize the rights of their feeble, sick, and incompetent brothers to such a degree of liberty, comfort, and happiness as their condition will allow, and is compatible with the safety and general welfare of society. Sentiments of altruism make *charities*, both public and private, an equitable and commendable mode of the distribution of wealth. This mode needs no restrictions of law, but may be safely left to the guiding power of altruistic motives, which are fostered and increased with the advance of civilization.

2. Inequitable Modes of Distribution.— In all of the second class of modes we discover a just return for service, but always an inequitable return as well. In each of the class, rent, royalty, and interest, classified as inequitable modes, there is an element which represents the wages of labor; but that portion of the return in excess of such wage of labor is an "unearned increment of value." This unearned increment is created by causes which will be considered under "means of distribution."

a. Return of Land Potential in Rent.— In a new and sparsely settled country, where land can be had without cost, rent is at a minimum, since no one will pay for that which can be had without price. If labor is expended on land in improvements, it commands rent, as profits to capital represented in the labor expended in land improvements. If it be found that the best pieces of land are taken, and only those more sterile, broken, or otherwise inferior, remain to free competition, the fact of monopoly, as private ownership, of the better lands gives them a value and rent-commanding power due to this superiority and proportional to it. This increment of value and rent-commanding power is inequitable, since it is founded on the false principle that to find is to own, rather than that the bounties of a beneficent Creator are equally gifts to all mankind. Such an increment is an *unearned increment*. Finally, with the growth of population all lands are taken, and they increase in value and rent-commanding power in proportion to density of population, in proportion to their proximity to centers of trade and population, in proportion to their adaptation for some specific purpose, as mining and manufacture, and in proportion to several other conditions accompanying growth and advancement, such as the moral atmosphere of the locality, the facilities for schools and amusements, and the number of wealthy and fashionable people living in the community. Increase of valuation and rent-commanding power due to such causes are also unearned increments and are inequitable.

b. Return of Patent Potential in Royalty.— Governments have enacted patent and copyright laws to insure to inventors and authors a reward for their labor. In general, such laws are just and beneficial to society; for, without them, there would be little incentive for men to pursue such lines of effort, since no reward for such labor could be assured. The return in wealth commanded by the patent potential is termed *royalty*. A portion of royalty, as in rent, is an equitable return for labor and may be considered wages. Like land, also, when a patent on copyright proves very desirable in the estimation of many men, it

may increase in value and royalty-commanding power to an almost unlimited extent. This increase, due to the power residing in monopoly created by law, gives to patents and royalties an unearned increment of value, which is inequitable. Just where equity would cease in the patent potential might be difficult to determine, but that many patents command a large unearned increment of value is beyond question.

c. Return of Money Potential in Interest.— The return of the money potential is *interest*. Capital commands a certain reward, being a productive element of industry as labor of the past, and, in the minds of most men, justly so. But if a man's labor be converted into money, and he choose to loan it to a borrower who will make use of it in industrial pursuits, instead of so using it himself, justice would seem to require for money so loaned a reward. But it is everywhere true that money commands a rate of interest considerably in excess of the average profits of capital in industry; it must, therefore, absorb profits and a portion of the wages of labor. All interest in excess of the equitable profits of capital in industry is an unearned increment, and, as such, is inequitable.

3. Despoliatory Modes of Distribution.— In the modes of distribution thus far considered, the whole flow of wealth, or a portion of it, as in the second class, is to the producer of wealth as an equitable reward for services to society. But in considering the third class of modes we find that they represent wealth turned entirely aside from equitable channels and flowing into the coffers of men who perform no service to society, unless it may be a baleful and destructive one. These modes may with propriety be termed the *despoliatory modes of distribution*, since they are wholly predatory and enable the drones and criminal classes of society to live off the fruit of other men's toil.

a. Spoliation by Increment of Debt.— The laws of all civilized nations allow individuals to borrow money, or wealth expressed in terms of money, and enforce payment of debts thus created by debtor to creditor. If, during the pendency of the debt, the numerical unit of account (commonly called the money unit) be increased in buying power, the debtor is despoiled of his wealth by being required to pay more than the contract value. If, on the contrary, the legal money unit, or numerical unit of account, be diminished in buying power, the creditor is despoiled of his just due. The first process may be termed the *increment of debt*, and the second, the decrement of debt; but both may be regarded as increments, algebraically considered, the one positive and the other negative. Such spoliation is made possible by the fact that nations have not as yet learned to make the legal unit of value, or the numerical unit of account, an invariable unit for the measurement of values.

b. Spoliation by Increment of Speculative Value.— A merchant, who sells goods at an advance above the purchase price, is an agent in the distribution of commodities; and, as such, he performs a valuable service for other individuals, which service brings to him an equitable reward in profits on capital invested. So, also, the broker or commission man, who buys or sells goods for another, draws his reward in commissions, a wage paid by one individual to another for

a service rendered. But there is another class of individuals who buy and sell with nothing in view but a prospective rise and fall in price at some future time, in which rise or fall they expect to make a gain. The increment or decrement of price on which the buyer or seller bases his transaction may be designated the *speculative increment of value*. It is not an economic good in society, but an evil. To illustrate: Suppose one set of men, the "bull" speculators, buy a large quantity of commodities or stocks for future delivery at a certain price, of another set, the "bear" speculators, who "sell short;" that is, sell for future delivery what they do not have at the time the sale is made. The "bulls" put forth every effort to push prices up beyond the contract price, in which case the "bear" must put up the margin; that is, pay to the "bull" the difference between the real price on the day of delivery and the contract price. On the other hand, the "bears" exert all their energies to push prices down below the contract price, so they may buy to "cover" their sales, or so that the price on the day of delivery shall be below the contract price, in which case the "bulls" must "put up the margins." Neither party buys or sells because he wants the thing bought or sold, but makes the transaction merely in the expectation of making his fellow gamblers of the opposing class "put up the margins." Such transactions serve the same ethical and economic purpose in the business world, and must be put in the same category, as betting and other forms of gambling. The winner takes a value without giving any value in return. In this mode must be classified all kinds of speculations in stocks and commodities.

c. Spoliation by War, Gambling, and Crime.—The modes of distribution of wealth thus far considered are all sanctioned by law; but there are several other modes, here classified for convenience under one head, which, with the exception of spoliation by war, are placed under the ban of the law. They need but a passing notice in this connection. While law makes no prohibition against spoliation by war, since wars are conducted by one nation against another and not by individuals, for the government of whom laws are made, it is taking wealth by force without giving value in return, and must be classified with the modes of the thief and highwayman in possessing themselves of the wealth of their fellows. The modes of the thief, robber, gambler, swindler, and confidence man are universally condemned by society, and the law places heavy penalties upon them. Public welfare demands that they, like all forms of crime, should be reduced to a minimum.

CHAPTER II.

CLASSIFICATION OF THE MEANS OF DISTRIBUTION.

A CLASSIFICATION of the means of distribution strictly analytical, with exact co-ordination and subordination of the various causes, or means, is difficult, if not impossible, to make, owing to the fact that they are overlapped and interlocked, and to a certain degree mutually dependent one upon another. Thus *competition* and *monopoly*, which are classed as proximate or direct means, not only have effects upon each other, but, also, on *transportation*, *credit*, and *money*, which are classed as remote or indirect means. Every one of the means enumerated has a certain effect on every other one; it is not, therefore, practicable to treat them separately and wholly disconnected from each other. Nor is it profitable to carry the analysis of means to the extent of separating them into simple causes; but each as classified is a complex notion susceptible of further analysis. However, the proximate and direct will be found to approximate more nearly to simple causes than those classified as remote and indirect.

1. Proximate, or Direct, Means of Distribution.—As factors or means more directly instrumental in the distribution of wealth and more nearly elementary, we may enumerate eight: (*a*) Competition, (*b*) Benevolence, (*c*) Legislation, (*d*) Business Acumen, (*e*) Deception, (*f*) Monopoly, (*g*) Stealth, (*h*) Violence.

a. Competition.—As its derivation implies, *Competition* is the seeking of the same thing by two or more individuals. The operation of the principle of competition is well exemplified in an auction, at which commodities are put up for sale. The article is exhibited and offered for sale, and a person who desires it makes a bid of a certain price; if there happen to be others who desire the same article, another person bids higher; still others bid until no person is willing to bid higher, when it is sold to the highest bidder. It is easy to see that competition is a factor which affects prices to a greater or less degree in all lines of industry. Competition among sellers of commodities brings prices down toward the margin of profit, below which limit a sale can bring no profit to capital invested. Competition among buyers brings prices up toward the highest price compatible with the buyer's desire for the commodity and his ability to pay the price. Competition among money loaners brings the rate of interest down toward the limit of risk and cost of maintaining the loaning business. Competition among borrowers brings prices up toward the limit of profit to capital invested in business. Competition among railroad or other transportation lines brings the price of that service down toward the limit of cost in transporting. And, finally, competition among laborers brings the wages of labor down toward the limit of cost of subsistence. Competition is the practical means by which all values, whether of services or commodities, are determined, in strict accordance with the formula: $v \propto \frac{u\,l\,n\,t}{a}$. An equilibrium of the opposing forces of competition among the different

elements of society, if allowed to act without intervention of other causes, would so operate, to distribute the wealth produced, that each producer would receive reward in proportion to the service he renders society.

b. Benevolence.—There are always to be found in society classes of individuals, who, from youth, inferior mental and physical endowments, or from misfortune, are not able, under the conditions of production and competitive distribution of wealth, to supply themselves with the necessaries and comforts of life. In the extreme savagery of man's primitive condition the selfish propensities of the race greatly predominated, while the benevolent or altruistic sentiments of the mind had but slight influence on human character. Accordingly, the aged, the maimed, the imbeciles, were slain. But, doubtless, the altruistic sentiments always prevailed to a degree in the family. Parents supplied their helpless children with food, raiment, and other things to satisfy their wants. From the family these sentiments extended to the tribe, and the old and helpless warrior was cared for in consideration of past services. Later, benevolence reached out for its objects to the whole nation, and all individuals who were unable to care for themselves were provided with means of subsistence. Now the extreme socialists contend that rewards should not be given in accordance with services performed, but equally—that all should bear burdens of labor in accordance with their abilities, and become equal partners in the rewards of labor. The benevolent faculties of the human mind are powerful factors in the distribution of wealth, and are becoming more so. On them depend the religious, benevolent, and charitable societies, and all public and private charities.

c. Legislation.— Of all the direct means of distribution of wealth there is none more important than *legislation.* It reaches out to the product of labor and gathers wealth, through the various forms of taxation, and returns it to the individual in various modes. It returns wealth collected to the government official or employé as salary — a fixed wage not subject to the laws of competition. It may hedge about certain industries with a protective tariff, or give them advantages over others by granting bounties, thus returning to certain invested capital increased profits, to a degree protecting capital from the leveling process of competition. It may establish public institutions of learning and charity, distributing wealth for the public good. It creates monopoly in land, enabling the landlord to tax society for his benefit as rent. It creates monopoly of thought, device, invention, in copyrights and patents, enabling the holders thereof to tax society for access to, or use of, their thoughts, devices, and inventions, returning to them reward as royalty. It may be favorable to or against the money-holding class, enabling it to increase or forcing it to lower rates of interest. It may favor spoliation by increment of debt, by giving the people an appreciating money unit of account. In fine, it may, by the enactment of good or bad laws, increase the flow of wealth, or diminish it, through any one or several of the various modes of distribution. It is principally through legislation that equitable or inequitable distribution is to be effected.

d. Business Acumen.— Every observing person has seen the great diversity of individuals in their ability to "get on in the world." Two persons may be equally honest, industrious, intelligent, and frugal, yet one will accumulate wealth, while the other lives to-day on the wages of yesterday. One possesses *business acumen* which enables him to make the most of his resources — to take things at the "flood" which "leads on to fortune." If he be a merchant, he manages to buy at the lowest and sell at the highest market price; if a farmer, he foresees the shaping of events which in the immediate future will render this or that line of agriculture most productive in its return for his labor. The "business mind" may, indeed, be much inferior, in the scale of mental excellence, to that of him who, in common phrase, lives from "hand to mouth," but it is a mind which turns the forces of distribution into channels favorable to himself.

e. Deception.— It might appear that *deception* is but a form of business acumen and should be classified as subordinate to it; but, while in the latter there is nothing necessarily inequitable as to ethical quality, deception is essentially inequitable, and it is therefore treated as a separate and co-ordinate means. It is successfully used by the cheating tradesman, the swindler, the bunco-steerer, the gambler, and distributes wealth in the despoliatory modes.

f. Monopoly.— The term *monopoly*, here classified as a means of distribution, is quite different in origin and ethical quality from the legal monopolies in land and patents. The latter may be used to force an equitable return for services rendered to society, but are often used to extort from society an inequitable return. They are properly included under "Legislation." Monopoly as here classified is a general term including all those human powers which lead men to conspire to extort from society more than an equitable reward for services rendered by them. It buys what competing institutions it can, or finds profitable to buy, and crushes by ruinous competition that which it chooses to destroy. Monopoly does under the law what thieves and bandits do in defiance of law. As to ethical quality monopoly has little to recommend it above theft and robbery, unless it may be that it is a less dangerous and less shocking means of appropriating the earnings of others.

g. h. Stealth and Violence.— All civilized nations attempt by legislation to abolish *stealth* and *violence* from society; yet, nevertheless, they are no inconsiderable means of distributing the fund of wealth produced. And while they have long been under the ban of the law as means used by individuals, yet nations, when at war with each other, still regard stealth and violence in despoiling the enemy as justifiable means. They are, however, means which society, by common consent, condemns.

2. Remote, or Indirect, Means of Distribution. — Besides those enumerated as direct means of distribution, there are others more complex in character, the effects of which are somewhat less directly traceable to them as causes, which are termed *remote, or indirect, means of distribution.* They might, with equal propriety, perhaps, be termed *composite means,* since they generally represent several of the direct means acting simultaneously. They also usually represent means so controlled as to operate in one or more of the inequitable or despoliatory modes.

a. Transportation. — *Transportation* has been mentioned both as a mode of production of wealth and a means of exchange, or distribution of commodities; but it is, also, in our complex civilization, a most powerful agent, or means, in the distribution of wealth. By the varied application of the direct means it causes wealth to flow in the various modes, and often in the inequitable and despoliatory more largely than in the equitable modes.

b. Credit.— Uniformity of the volume of *credit* and a general honesty and ability of debtors to pay would make that factor a means of exchange, but would eliminate it from the means of distribution. In actual practice credit becomes one of the most important means of distributing wealth. It, too, like transportation, can be so manipulated as to cause inequitable and despoliatory distributions.

c. Money.— As long as *money* is confined to its legitimate functions, as a means of exchange and a just measure and standard of value, it can only distribute wealth as interest. But, since money is a creature of law, and subject to control of men, it, in conjunction with credit, is made the most powerful of all means in the inequitable and despoliatory distribution of wealth.

The three indirect means mentioned in this chapter are of so great importance in distribution that they will be specially treated, as to their operation, in the succeeding chapters.

CHAPTER III.

TRANSPORTATION AS A MEANS OF DISTRIBUTION.

TRANSPORTATION is a necessary branch of industry, and, as such, it should reward men engaged in it for their services to society. This it does, to the employé as wages; to the owners of stock as profits or dividends and increments of valuation of stock. Were there always competing lines of transportation, and were competition the only direct means through which it operates as a distributor of wealth, that means would level down the profits of capital invested and the wages of transportation to that of capital and labor engaged in other industries. Competition would not necessarily bring down the reward of transportation to an equality with those of other industries, since competition would be sharpest in desirable occupations and less so in hazardous, unhealthful, or otherwise undesirable ones, making rewards in the latter classes of occupations greater than in the former. The statement, therefore, is, that free competition would distribute rewards equitably to those engaged in transportation, as compared with other branches of industry.

The object of this chapter is to explain the operation of transportation companies, acting as a composite or complex means of distribution of wealth.

1. Railroading.— The term *railroading*, as applied to certain operations in the business world, has

come to be synonymous with all that is tricky, underhanded, and fraudulent. To railroad a bill through a legislative body is to procure its passage in some one or more of the following ways: by deceiving the legislators as to the real intent of the bill and its operation when enacted into law; by "log-rolling" it, by the mutual pledge, "you help me through with my bill, and I will help you through with yours;" by indirect bribes, in interesting members financially in stocks or enterprises to be affected by the proposed law; by bribing members directly with money or some other valuable consideration; or, finally, by surreptitiously inserting a clause or making a change in the measure between the time of its public consideration or passage and the time of its being enrolled or engrossed on the record. This bad signification to the term has been attached to it because of the general bad repute which railroad operations have gained with the masses of the people. It will be considered under two heads, to show the real methods by which most railroad business has been done — *Railroad Construction* and *Railroad Management.*

a. Railroad Construction.— Nearly all steam railroads have had similar histories of construction, of which the following brief outline is typical: A "promoter" looks over the route, lays the matter before "capitalists," interests them in the project, and forms a stock company, or corporation, to construct the road. Routes are surveyed and aid secured, by gift or subscriptions to stock, from property holders all along the line. A portion of the road is completed, and another portion graded, when the "promoter" makes a trip to the money centers, perhaps to Europe, to "float" mortgage bonds issued by the corporation on the road. After negotiating these bonds at the highest possible price, he returns, and the money so obtained is expended in further construction and paying a large percentage to the "promoter." The funds again running low, the "promoter" makes another trip abroad, more bonds are "floated," and this process is continued until the road is completed, equipped, and ready for operation. Usually when the road is completed there will be the original stock, the first and second mortgage bonds, and sometimes, even, the third and fourth mortgage bonds. The capitalization will usually be from two to four times the actual expenditure in its construction and equipment. The road runs for a time, but pays neither dividend on stock nor interest on bonds. Meanwhile the mortgage is foreclosed, and the road passes into the hands of a receiver. It is finally "reorganized," the first mortgage holders usually compromising with the holders of second and possibly the third mortgage holders, the original stockholders being "frozen out," and generally some of the holders of mortgage bonds. New stock and bonds are issued to the new owners by virtue of the foreclosure and compromise, to the extent, usually, of two or three times the cost of constructing the road, and it is thenceforward a subject of "railroad management." There is but a slight variation from the method outlined in the preceding in the construction of street railways. In this case, however, the securing of a favorable franchise is of the utmost importance as affecting the profits of the roads and the value of the stocks. Franchises granting the privilege of collecting unjust and burdensome fares are often secured from city councils by the methods of "railroading" above referred to.

This method of "financiering," so successful in appropriating the earnings of one class to the use and benefit of another, is employed in establishing many other industries, which need not here be specifically mentioned; the method is the same in all. By it original investors are despoiled of their rightful ownership in the industry; the unsuspecting purchaser is despoiled of wealth in the purchase of "watered stock;" and, finally, the public who patronize the road are forced, through a monopoly maintained by the owners, to contribute interest and dividends on stock representing nothing but "water." Thus, through deception, legislation, and monopoly, the division of transportation, which we have discussed under "railroad construction," becomes one of the most powerful of despoliatory means of distribution of wealth.

b. Railroad Management.—Under the term *railroad management*, here treated as a means of distributing wealth, is not included such wise, judicious, and honest management as may be applied to industry to make it successful in drawing a just compensation from society for services rendered; for such management would not make it a distributor of wealth; it would be a passive factor, or condition, rather, allowing competition, business acumen, and just legislation to distribute wealth equitably to those engaged in the industry. It is rather to the despoliatory methods of railroad management that this subdivision of the chapter is devoted.

(1.) *False Dividends.*—A favorite mode of defrauding the public, by many "railroad managers," is by declaring *false dividends.* Certain improvements are made, and new bonds issued. A portion of the proceeds are devoted to the improvements made, but the larger portion is placed in a fund out of which, each year, to declare a larger and larger dividend. The investing public, seeing the increase in the dividends paid by the road, begin to purchase the stocks, and they rapidly rise in market value. And when the stocks have risen to a price as high as they can safely be pushed, the principal owners of the stocks "unload" them on the unsuspecting public at a price far in advance of the normal price. The "managers" pocket not only most of the false dividends while principal owners of the stocks, but defraud purchasers of the portion of the purchase price of the stocks represented by the advance in price above their normal valuation.

(2.) *Passing Dividends.*—Another mode of spoliation practiced by railroad manipulators is that of "*passing dividends.*" This method is usually adopted when large amounts of stocks are owned outside the directory of the company, and when some pretext, as a strike, enables the board of directors to "pass dividends" without exciting suspicion as to the real object of such action. Thus stocks which have paid good dividends, and ranging in value at par or above, on failure to pay dividends, rapidly decline in market value, sometimes forty cents or more on the dollar in a single year. When the stock has reached low ebb on the market, the manipulators quietly buy all stock of the road offered, until most of it is held by directors of the company. Then the road begins to pay dividends on the stocks, which gradually come up in price to the old figures. The sellers thus lose and the buyers gain the dividends which have been allowed to accumulate, and the decline in the stocks thus transferred.

(3.) *Watering Stock.*—One of the oldest practices of "*railroad management,*" and one still made use of to a great extent, is that of "watering stock," so called. This is most conveniently done, without attracting attention to the fraud, in time of construction and improvement of the road. Often new stock is issued and placed on the market, limited in quantity only by the extent to which the public can be deceived into purchasing it. A small portion may be devoted to construction or improvements of the road, but the greater portion of the proceeds is pocketed by the "management." This stock issued, and representing nothing, may be regular certificates of stock or in the form of mortgage bonds. It is also done at a time of reorganizing a road, when the new directory issues just the amount of stock it sees fit to issue by vote of the board. To such an extent has this means of spoliation been employed that there are few, if any, railroads or street railways whose stock has not been "watered," and in many cases to the extent of several times the original investment.

(4.) *Wrecking.*—It can not, perhaps, be said that *wrecking* is a separate and distinct process of railroad management. It is, as commonly understood, a process which generally includes *false-dividend* paying and *watering* of stock. It consists in building up, apparently, a great industry, establishing a reputation, despoiling it of all assets which can be carried away in the form of money, and abandoning it to the receiver and sheriff. This is done in various ways, but the following is typical: A road between two great centers of trade as termini is bought or constructed by "promoters," who begin, by cutting rates, to increase the business of the road. A large volume of business is secured at whatever cost. Improvements are made; new stock issued; first, second, and third mortgage bonds are successively floated on the market, on the showing of its being a great "trunk line." The "false-dividend" and "watering" processes are employed, while the principal officers — the promoters of the line — are paid princely salaries. In the course of a few years the promoters have pocketed large sums as salaries, by direct misappropriation of the proceeds of stock and bonds, also as dividends; and, finally, they sell their interests at greatly inflated prices, and abandon the road to the mortgagee, receiver, and sheriff.

2. Diversion.— Besides acting through the direct means and in the ways previously discussed in this chapter, transportation acts as a means of distribution of wealth in the *diversion* of business and industry from profitable or economical channels, thus diverting the equitable flow of wealth to producers. For example, in times when competition brings the cost of transportation down to a fair margin of profit, the raising of corn in the West and the mining of coal in the East may become profitable industries for exchange. But when transportation companies combine and raise the price of carrying, it may be raised to such an extreme that the miners are shut out of employment in the East and starve, while the Western farmer burns corn as a cheaper fuel than coal. This high cost of transportation diverts industry in the East from mining to farming on sterile lands; and, in the West, from farming on fertile lands to mining coal in fields before regarded as unprofitable. Thus, transportation, in taking an inequitable portion of the products of labor, interferes, not only with profitable and maximum production, but turns the flow of wealth out of the channels of equitable distribution. Industries established and equilibrated under one set of conditions may be entirely upset under another set established by a change in the rates of transportation. What holds true of coal and corn holds generally as between manufactured goods in a section adapted to manufacture, and agricultural products in sections adapted to agriculture.

Remark: It may be said here, in closing this chapter, that transportation by water is much less affected by the operation of causes which produce inequitable distribution than land companies like railways, competition being more powerful to cut down the profits of the business to the level, approximately, of other industries. Yet a subsidized shipping may give one nation an advantage over another which gives no such encouragement to transportation. Water transportation companies may, however, and often do, become monopolies, by the concentration of capital, and by a warfare of ruinous competition waged by them against companies financially weaker than themselves.

SYNOPSIS OF CHAPTER III — TRANSPORTATION AS A MEANS OF DISTRIBUTION.

- Transportation
  - Preliminary
  - 1. Railroading
    - *a.* Railroad Construction
    - *b.* Railroad Management
      - (1.) False Dividends
      - (2.) Passing Dividends
      - (3.) Watering Stock
      - (4.) Wrecking
  - 2. Diversion
  - Remark

CHAPTER IV.

CREDIT AS A MEANS OF DISTRIBUTION.

CREDIT has been discussed as a means of exchange; but it is also a means of the distribution of wealth in two ways: by expansion and contraction, in which the numerical unit of account (the dollar in this country) is diminished or increased in buying power; and by bankruptcy, by which the creditor is despoiled of his wealth.

Expansion and Contraction.— Whenever, from any cause, prices of land, stock, and commodities are advancing, there arises an increasing demand for loans of money or other capital for investment in speculative purchases or the industries; since men see more opportunities for gain at such a time and credits extended to borrowers are greatly increased. But an increase of credits, as has before been shown, other conditions remaining the same, has the effect of increasing the money volume, and thus diminishing the buying power of the dollar, the numerical unit of account. The creditor, in this case, receiving dollars of less buying power than he loaned, receives as principal less wealth than is equitably his. However, this loss to the creditor is usually compensated in the larger rates of interest and in his having more of his capital loaned out and drawing interest. Periods of expansion of credits, expansion of money volume, and consequent rapid growth of industries, are known as "periods of inflation," and, if extreme, often end in panic when the time of contraction does come. However, a rise in prices, once begun, has a tendency to increase by the very manner of the operation of causes producing expanding industries and higher prices. Thus, rising prices increase profits; increasing profits expand credits and industry; expanding credits diminish the buying power of the numerical unit of account and further force prices upward; and so on, till some cause sets the trend of prices downward, when the process is reversed. When, under rapid expansion of credits, some condition arises which causes men to lose confidence in the ability of debtors to pay, loaners withdraw credits, and this in turn cripples industry, increases the buying power of the dollar, produces a decline in prices which further begets a lack of confidence, causes more credits to be withdrawn, and so on until the decline be arrested by some other cause. The effect of contraction in distribution is thus the reverse of expansion; the debtor is forced to pay dollars of greater buying power than those he borrowed, and the creditor receives more than an equitable distributive share of wealth. But, unlike expansion of credits for the creditor, contraction affords nothing to the debtor to compensate him for his loss. On the contrary, the general effect of contraction is injurious ultimately to all classes; for the creditor, in withdrawing his capital from active use, diminishes the total output of production, receives less in interest, on the smaller volume loaned out and by the necessary lower rates; and this process, if long continued, becomes a potent cause of the decline and fall of nations.

Bankruptcy.— Without going into a discussion of the causes of *bankruptcy*, of which there are a large number of special, as well as several general causes, it will here be important merely to treat it as an incident of credit and a factor in the distribution of wealth. If we assume that the debts created are just, we must conclude that the payment of debts is required for equitable distribution, and, therefore, bankruptcy defeats justice by taking the creditor's wealth and distributing it to individuals by whom it was not earned. If, however, we assume that the debts of a certain debtor are fraudulent, and that the original payee has not given the maker the value which the debts represent, bankruptcy in such case, even, would not generally distribute wealth equitably; for, in general, the obligations at time of maturity would be in "third parties'" hands, who have paid a valuable consideration for them. It follows, then, that in case of fraudulent debts, even, cancellation of the debt can distribute wealth equitably, or, rather, prevent inequitable distribution, only when the obligation at time of bankruptcy is owned by the original payee. Without further argumentation, then, it may be assumed that bankruptcy, or credit through bankruptcy, distributes wealth equitably rarely — generally inequitably.

CHAPTER V.

MONEY AS A MEANS OF THE DISTRIBUTION OF WEALTH.

As has been before stated, money, to perform equitably its functions as a medium of exchange, must be a measure and standard of value. If a perfect standard could be devised and put into general use, money would thus become a means of equitable distribution in its facilitating exchanges, but it would be eliminated from the means of inequitable distribution. It is, in practice, so important a factor, or means of distribution, that it deserves especial consideration as such. But before we can determine the effect of money on distribution, it will be necessary to investigate the question of the measurement of value, and discover, if possible, a just and equitable standard by which all other values can be measured.

SECTION I.

THE STANDARD.

The question as to what an exact standard of value is has given rise to much discussion; and the question still appears to be in a state of indefiniteness, if we are to judge by views expressed by many so-called economists and financiers. In view of the great variety of opinions expressed, let us determine a few things that an exact standard of value is not.

1. Not Gold.— A consideration of the formula of value will show that no commodity can remain fixed in value, unless the elements entering the relation of supply and demand can be so adjusted as to make that relation constant. There is no known commodity which is constant in supply or demand, nor in the relation of its supply to its demand. Furthermore, there is no commodity known and used by both ancients and moderns which has been more variable in its production — determining its supply — than gold. The actual supply has not, however, been so variable as its production, because of the vast hoarded stock which has accumulated for many centuries. Again, the concerted attempt of the holders of money and credits, and the beneficiaries of fixed incomes, to make gold the sole standard, has in recent years greatly increased the demand for gold; so, though gold has increased rapidly in production during the last half century, production has not increased the supply of gold so rapidly as the demand for it has increased. The appreciation in the value of gold has been apparent in the general decline in the prices of commodities. But so wide-spread are the delusions among intelligent people as to the fixity of gold in value, that it will be necessary to dissipate some of them by showing their utter lack of foundation in reason.

a. Gold Measuring Gold.— It is common to hear: "The gold dollar can not change; it is never at a premium; it is never at a discount; it is always worth just 100 cents." This delusion as to the fixedness in value of the gold dollar has its origin in the fact that they who use this argument fail to discover in it the statement of the identical equation of mathematics, which determines nothing. That $x = x$, $2x = 2x$, and that $5x = 2x + 3x$ tells us nothing as to the value of x. It may be large or small; and the equation is just as true in one case as in the other. The law fixes the dollar at 25.8 grains of standard gold; it also divides the dollar into one hundred parts, each one of which is called a cent. To say that 25.8 grains of gold is always just a dollar is merely to repeat the identical equation, one dollar = one dollar; or one dollar $= \frac{100}{100}$ dollar; or $\frac{100}{100}$ dollar $= \frac{100}{100}$ dollar. It tells us nothing of the value of a dollar. Or, to say that 258 grains of gold is always worth just ten dollars, is simply to state the identical equation, 10 x one dollar = ten dollars, without telling us anything about the value of the dollar more than that it is the value, larger or smaller, of 25.8 grains of gold as fixed by law and the relation of the money-volume to business. But again, say the advocates of the gold standard: "The gold dollar may be melted, defaced, or ground to powder, and it has always the same value; it is always worth a dollar." It is not true that it is always of the same value, though it may always be worth a dollar. The latter statement is true, because the government gives gold free and gratuitous coinage. It not only says to the world, "25.8 grains of gold shall be a dollar," but also says, "melt your dollars; deface them; grind them to powder; bring to me all your gold, in whatever form, and I will coin it without charge into dollars, 25.8 grains standard gold to the dollar." The government now refuses to recoin defaced silver coins, or to coin uncoined silver into

dollars freely and gratuitously, but gives those already coined the power in exchange of a dollar. The silver dollar passes, not, therefore, at the silver valuation, but at the gold valuation, just as all paper currency does. But were the government to give silver free and gratuitous coinage, then 412.5 grains of standard silver would always be worth just 100 cents, or one dollar, no more, no less. While this would be true, it gives us no information as to the value of the dollar; we are dealing still with the identical equation.

b. Weight not Value.—Again, say the advocates of gold, "If the law fixes 25.8 grains of standard gold as the standard of value, that is a fixed and invariable quantity, just as the length fixed for the standard yard, the mass of the standard pound, the capacity of the standard bushel. Being always the same quantity, no more and no less, it is, therefore, an undeviating standard of value." This delusion is based on the confusion of weight with value. It is true that the same weight of gold is always the same weight of gold (another case of the identical equation), but it is not true that the same weight is always the same value. Weight can not measure value any more than volume can measure weight. There is a traditional saying that "a pint's a pound the world around;" but if we apply the rule to a pint of mercury and then to a pint of soap bubbles, we will discover that the rule is not true, even if it have the prestige of antiquity. Sixty pounds of wheat are a bushel and always equal to sixty pounds of wheat; but sixty pounds of wheat are not always of the same value. Likewise, 25.8 grains of gold are a dollar, and always equal 25.8 grains of gold; but 25.8 grains of gold are not always of the same value, any more than a certain weight of any other commodity.

c. Cheapened Production.—There are many who, seeing the untenableness of the position that gold can not fluctuate in value, admit it for argument, and say: "Gold is subject to the law of supply and demand, and varies slightly in value; but it has increased in production in recent years to keep pace with the demand for it; and the fall in price of commodities generally has been caused by cheapened production, due to inventions, discoveries, improved processes and machinery, which have caused a fall in the price of commodities while the value of gold has been comparatively stationary." This argument is a specious one, and has been put forward by men of national and world-wide reputation. It ignores the fact that value is merely a relation, and not a fixed quantity, or attribute of any particular thing. It matters not what be the cause of divergence, the relation of value is changed; and it matters not whether we say that gold has appreciated in value, or commodities depreciated, the result as to the value is one and the same. While it is not true that the production of gold has kept pace with the demand for it; nor is it true that improved means of production have been so greatly increased during the last quarter of the century, as during the third quarter; yet it changes not the real argument, if we admit the whole contention in these regards. Suppose we assume, for the sake of argument, that gold is a fixed and stationary value (impossible though it be), and that commodities during the last quarter of the century have declined fifty per cent., owing to improved facilities for production. It takes now but half the labor to produce a given quantity of any commodity; or, by putting forth as much effort as formerly, the producer can produce twice as much. But, as prices are only half what they formerly were, it takes twice as much of commodities to pay a given debt. Since the creditor receives twice as much of all that goes to satisfy wants, he is twice as well off. The debtor producer, however, has reaped no advantage from increased facilities; for, though he can, with his customary energy, produce twice as much, it takes twice as much to pay his debt. A standard which would thus deprive the debtor producer of all advantage to be gained by increasing the powers of production, bestowing that advantage upon the creditor, unearned by him, can certainly be reconciled with no system of ethics, nor, in its ultimate results, with any proper system of economics.

2. Not Any One Commodity.—From what precedes it appears that gold can not be an equitable, or invariable, standard of value, because it can not always maintain the same relative position to commodities, which it measures in value, as to supply and demand. The use of any one other commodity would be open to the same objection, though differing in degree of stability. Silver, in practice, has been found to be more nearly unvarying in its relations to commodities than gold, and has, therefore, served as a better measure of value. Both are superior to copper or iron as measures, owing chiefly to the fact that the former can not so quickly and easily be changed, in the volume of their visible supply, as the latter.

3. Not the Precious Metals.—While, for reasons given under "Bimetallism," in Book II, gold and silver, linked together by free coinage at a fixed ratio, constitute a standard much superior in stability to either one of the metals taken alone; yet, since there are no means of keeping the volume of the two metals at an invariable ratio to the demand for them, as compared to other commodities, they do not constitute an invariable standard for the measurement of values. The great decline in prices from 1809 to 1849 shows that the demand for the metals increased more rapidly than their supply; and the civilized world was then on a bimetallic system of money.

4. Not Labor.— Many have assumed that labor is the true measure of value. This assumption, by a little investigation, is easily shown to be fallacious. If the productive forces were so adjusted that the same labor on the average would always produce equal quantities of utilities, then labor would be an equitable standard of value, but not otherwise. For let us premise a "complete productive unity," in which the laborers are all equally remunerated. And further, assume that the powers and facilities for production are doubled, without increase of laborers or increase of labor. Then the community of workers would produce twice as much of commodities for a given expenditure of labor, and, therefore, twice as much should be distributed to each laborer. But, if a day's labor be the measure of value, the debtor producer who pays a debt with the same number of days' labor, or its product, as before the increase in productive facilities took place, will then give the creditor all the advantage accruing from increased facilities, while the former is none the better off for the increase. Again, a diminished productiveness of labor would, by the labor standard, inure to the benefit of the debtor, thus offering him an inducement to diminish or destroy the means of production; for so would laborers increase the demand for labor and diminish the supply of commodities. It is obvious that it would not change the result, were we to suppose the laborers of the community to be divided into different classes, drawing different rates of wages; for, taking the lowest rate as a unit, higher rates received by other classes would bear the same relation to the unit rate as in money higher denominations of coin or bills bear to the dollar. It thus appears that the labor unit, as a standard of value, can not distribute wealth equitably under varying conditions of production.

5. The Average of Commodities.— Having considered a few things which the equitable standard is not, we are now prepared to determine what it is. It is such a unit as will preserve the *average price of commodities uniform under all conditions — it is the average of commodities.* By this is not meant that any one commodity shall remain uniform in price; for commodities do not and can not remain in the same relative position to each other as to supply and demand or labor cost in production. To illustrate: Suppose the labor cost of raising wheat be diminished one half, while the labor cost of all other commodities remains the same. Wheat must then decline in price relatively, since labor attracted to its production will produce a relatively larger supply. Again, if two commodities are cheapened in labor cost, in differing degrees, all other commodities remaining the same, the one which is the more cheapened will decline more in price; for that one will attract more labor to itself and will be more largely increased in supply relatively to other commodities. But, it will be seen, if all commodities are equally cheapened in production, they are not changed relatively to each other, and their prices will remain the same when measured by a perfect standard.

Commodities, however, are continually changing as to their supply and demand and as to the labor cost in their production, no two, perhaps, changing exactly alike. But there is an average change in labor cost of commodities, which ultimately governs the relations of supply and demand ; and we may assume a fictitious commodity to move along the line representing this average change in labor cost of commodities. This fictitious commodity is the perfect and equitable standard of values.

Preliminary to the determination of this average, let us suppose one thousand producers to form a "complete productive unity." It will make no difference in our reasoning whether we suppose them to draw equally or unequally from the whole product ; but we will assume, whether drawing equally or unequally, that the proportion which each draws of the whole product shall remain constant under varying conditions of production. In the first assumed condition, we will say, the thousand producers produce 1000 units of commodities, or utilities having value, and that, when distributed in proper proportions, these commodities are consumed. A second condition we will assume in an increased facility of production which enables the thousand workers to produce 1250 units of commodities with the same expenditure of labor as in the first case. Then each producer's

share, if the same amount of labor be put forth, should be twenty-five per cent. more. As the gain to each producer is an increased return of commodities (valuable utilities) for his labor, it would matter little, so far as mutual interchange of commodities is concerned, what standard or measure be used. The same would be true, if all producers under the second condition put forth twenty per cent. less labor (eight hours instead of ten) and produce the same quantity of commodities, the gain to each in this case being in the two hours' extra leisure time. Since any measure is just, if we leave the time element out of consideration, we will assume that the price remains unchanged — that the 1000 units of commodities represent 1000 units of value, and the 1250 units of commodities, 1250 units of value. It is still further evident that the reasoning will hold true, whether all commodities increase equally, in facility, or unequally. Some commodities might be increased in facility of production more than twenty-five per cent., while others might not be changed at all, changed in a less degree, or changed in an opposite direction, the twenty-five per cent. change representing merely the average change of all in the direction of increased facility. Likewise, there might be relative changes of price corresponding to change of facility of different commodities, being a deviation from the line representing the average change, yet the total price would increase with the total product, and the average price would be found by dividing the total price by the total quantity.

As before remarked, were the time element eliminated from business, the matter of measure might be satisfied by almost any other measure than the one assumed; but in practice it is impossible to eliminate the element of time; contracts are made to-day to be fulfilled to-morrow, next week, next year, next decade, or next century, even; and when the time element is considered, the standard assumed, it will appear, is the only just and equitable one. Under the first condition assumed one man gives his note for $1000, payable at a specified future time. The note matures under the second condition, when 1000 units of work produce 1250 units of commodities, instead of 1000 as under the first condition. If the debt be paid with the same commodities, which would have formerly sold for $1000, the creditor is paid in dollars of equal purchasing power, while the producer is the gainer by $250, as a reward for increasing productive facilities. But if, in the second condition, productive facilities have decreased twenty-five per cent., so that the 1000 units of work produce only 750 units of commodities, then the debtor must put forth thirty-three and one third per cent. more labor to pay the debt in dollars of equal purchasing power, and he is the loser — suffers a penalty for the "shiftlessness" of allowing productive facilities to decline, when, by a proper exercise of his mental powers, the producer should increase them, or, at least, maintain productive facilities equal to those of preceding times. Such a measure rewards energy and inventive genius, in increasing the powers of production, and fixes a penalty for allowing them to go to a decline and decay, and, in either case, the creditor is paid in dollars of equal purchasing power, and he, therefore, suffers no injustice from it. The unit, then, which maintains its purchasing

power, as related to commodities generally, is the most equitable standard for both debtor and creditor.

It may with propriety be asked how we shall arrive at such a standard by which to test prices. A perfect and not impossible standard, or index, might be determined as follows: The government, by a bureau of statistics, would determine the total amount of fruendal[1] produced in the country each year. All capital is to be excluded, since such wealth is not devoted directly to the satisfaction of wants, but merely to the production of more wealth, the ultimate end of which is fruendal. The total fruendal produced in the country is divided by the total number of individuals producing it, and this quotient represents the average amount of fruendal to be distributed to each. Let us call the amount in the first instance one hundred. Suppose the next year a like computation makes the average distributive portion of each producer one hundred and one. Then the unit of value which measures the average value of the distributive portion, in each instance, in the ratio of one hundred to one hundred and one, respectively, is an unvarying unit, or standard of value.

With present facilities for compilation of statistics, such a table, giving the total of fruendal in sight at any given time, as produced in any one year, would be difficult of construction. But approximations to the average of commodities are to be found in such works as the Aldrich Report of 223 staple commodities, Adolph Soetbeer's 114 Hamburg commodities, August Sauerbeck's 56 London commodities, and the London Economist's 22 commodities. Most of these tables are compiled by giving to each commodity an equal power in the formation of the average. Thus, if we begin our table with 1897, we will mark in our table opposite each commodity considered, 100. If wheat fall in 1898 to 81 cents from 90 in 1897, then the index number for wheat in 1898 will be 81÷.90=90. Suppose corn in 1897 to be 32 cents per bushel, but that it advances in 1898 to an average price of 40 cents. Taking the index number for 1897 at 100, for 1898 it will be 40÷.32, or 125. Thus all commodities are indexed by percentages from the prices of some year taken as a starting-point. The average index number is found by adding the indices of all the commodities for the year, and dividing by the number of commodities considered. This average taken for a series of years shows the trend of prices generally, and a unit so devised as to preserve this average uniform from year to year is an approximately perfect standard.

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[1] See Definition and Classification, pages 15 and 23.

A still nearer approximation to the perfect index table is made by giving to different commodities weight, in forming the average, in proportion to the amount consumed. To illustrate with simplicity, suppose only five staples be considered, and the proportions at which they are consumed are represented as follows:—

No. 1	10 per cent.
No. 2	15 per cent.
No. 3	20 per cent.
No. 4	25 per cent.
No. 5	30 per cent.
Total	100

Then to make up an average index number from the commodities, giving each weight in proportion to its importance in consumption, we would take ten per cent. of the index number of No. 1; fifteen per cent. of the index number of No. 2, and so on for all, taking finally the sum of these percentages for our average index number. Of course, the more commodities we take, approaching the total of commodities produced for consumption as fruendal, the nearer we approximate to a perfect index, and a perfect standard for the comparison of values. The standard of value which will preserve this average index number constant from year to year is the ideal, or perfect, standard. A great many methods have been proposed to attain this perfect standard in practice, the discussion of which is reserved for another work; but it will not be out of place here to remark that it would seem to be the function of government to preserve a uniformity of average prices by the control of the volume of money.

SECTION II.

DISTRIBUTION BY VARIABILITY OF STANDARD.

A change in the purchasing power of the legal monetary unit, as shown in the preceding section, distributes wealth inequitably. A cheapening of the unit, or, what is the same thing, an advance in average prices, pays debts with units of smaller purchasing power than those loaned, and the creditor is wronged; while, on the other hand, a change to dearer money by a decline in average prices, wrongs the debtor in compelling him to pay in units of greater purchasing power than he borrowed. These wrongs are as real, though much less easily discovered, as the tradesman's buying by a large measure and selling by a smaller one, or the creditor loaning by a small measure, and requiring payment by a larger. The wrong is less easily discoverable, as to changes in the measure of value, because the law fixes the unit of account at a certain fixed weight of gold or silver, which weight is very generally assumed to be a fixed value. Therefore, changes in prices are, by those who are not careful to look below appearances, attributed to changes affecting commodities alone, without differentiating the change in price due to the change in the value of the legal unit.

Some economists, so called, have advocated a gradual decline in general prices, alleging that it stimulates industry, economy, and thrift on the part of the producing classes. This argument, analyzed, is simply that it is good to keep producers in a state as closely approximating poverty as is compatible with good health, that hunger, cold, and other urgent conditions may stimulate them to greater energy, and that the chief beneficiaries of their industry and thrift may live the more luxuriously. Or, the argument may be put : It is good to tax producers for the benefit of the few who live, not on the product of their own labor, but by exploiting the labor of others. Again, it may be put: Let those who "toil not, neither do they spin," go forth and gather tithes, taking from each producer that which seemeth good to them. So far, indeed, is a general decline of prices from producing energy and thrift that it places a penalty on these virtues. With far more reason might it be urged that gradually advancing prices would be beneficial to all classes. Wealth always confers great power upon its possessor, and this power is too often used in taking advantage of the necessities of debtors. Gradually advancing prices would give a slight advantage to the debtor, which would compensate, in a measure, the advantage held by creditors over debtors. Advancing prices would also discourage the loaning of money for any purpose, except legitimate enterprise in productive industry. While under a system of advancing prices the creditor continually receives units of less purchasing power than he loaned, he is more than compensated in the increased rates of interest which his money commands, and in his being able to keep all his surplus capital employed in productive industries.

Throughout the historical period it has been observed that advancing prices have been attended, without exception, by great revivals of industry, inventions, discoveries, and all that contributes to progress and civilization. On the other hand, periods of declining prices have been periods of languishing industry, concentration of wealth, and the strangulation of all powers that make for progress.

By concerted action, men of great wealth have been able in recent years to inaugurate periods of advancing prices or declining prices, at pleasure. Prices being to a degree under their control, they become chiefly owners of property during the period of high prices, and of credits and money during the period of low prices. They are thus enabled to levy heavy tribute from society by their concert of action in the control of prices. To show the trend of prices during the last century, tables of index numbers are given below, covering the years from 1782 to 1899 inclusive, a period of one hundred and seventeen years. For the movement of prices from 1782 to 1853 we will refer to Professor Jevons's "Currency and Finance," pp. 144, 145. The following summary by years, marking the change in price of forty commodities, is taken from his chart:—

YEAR	INDEX	YEAR	INDEX	YEAR	INDEX	YEAR	INDEX
1782	100	1800	141	1818	132	1836	86
1783	100	1801	140	1819	112	1837	84
1784	93	1802	110	1820	103	1838	84
1785	90	1803	125	1821	94	1839	92
1786	85	1804	118	1822	88	1840	87
1787	87	1805	132	1823	89	1841	85
1788	87	1806	130	1824	88	1842	75
1789	85	1807	128	1825	103	1843	71
1790	87	1808	145	1826	90	1844	69
1791	89	1809	157	1827	90	1845	74
1792	93	1810	142	1828	81	1846	74
1793	99	1811	136	1829	79	1847	78
1794	98	1812	121	1830	81	1848	68
1795	117	1813	115	1831	82	1849	64
1796	125	1814	114	1832	78	1850	64
1797	110	1815	109	1833	75	1851	66
1798	118	1816	91	1834	78	1852	65
1799	130	1817	117	1835	80	1853	70

This table, covering seventy-two years of London prices, shows most violent changes in the valuation of the numerical unit of account, as indicated by the movement of prices of forty staple commodities. From 1824 to 1825 the table shows a rise in average prices of seventeen per cent.; while from 1825 to 1826 it shows a decline of thirteen per cent. It will be observed that general prices declined from 1809 to 1849, sixty per cent., indicating an appreciation of the legal monetary unit of one hundred and fifty per cent. In other words, the pound sterling would buy two and one-half times as much of these forty commodities in 1849 as in 1809.

The tables of Prof. Roland P. Falkner, as reported by the Aldrich Senate report of 1893, in response to the Senate resolution of March 3, 1891, covers the movement of two hundred and twenty-three commodities from 1840 to 1891. While these tables are open to the criticism of being incomplete in the period from 1840 to 1860, and that they compare the movement of the prices of articles in one period with those of dissimilar articles in another; yet they may be regarded as approximations to the real movement of general prices, erring, if either way, in the direction of showing less fluctuation of general prices than there has really been.

RELATIVE PRICES IN EACH YEAR, 1840–1891, IN GOLD, FOR TWO HUNDRED AND TWENTY-THREE COMMODITES GROUPED BY DIFFERENT METHODS.

YEAR.	All articles simply averaged.	All articles averaged according to importance, certain expenditures being considered uniform.	All articles averaged according to importance, comprising 68.60 per cent. of total expenditure.
1840	116.8	98.5	97.7
1841	115.8	98.7	98.1
1842	107.8	93.2	90.1
1843	101.5	89.3	84.3
1844	101.9	89.8	85.0
1845	102.8	92.1	88.2
1846	106.4	96.7	95.2
1847	106.5	96.7	95.2
1848	101.4	92.0	88.3
1849	98.7	88.9	83.5
1850	102.3	92.6	89.2
1851	105.9	99.1	98.6
1852	102.7	98.5	97.9
1853	109.1	103.4	105.0

YEAR.	All articles simply averaged.	All articles averaged according to importance, certain expenditures being considered uniform.	All articles averaged according to importance, comprising 68.60 per cent. of total expenditure.
1854	112.9	103.4	105.0
1855	113.1	106.3	109.2
1856	113.2	108.5	112.3
1857	112.5	109.6	114.0
1858	101.8	109.1	113.2
1859	100.2	102.0	102.9
1860	100.0	100.0	100.0
1861	100.6	95.9	91.1
1862	114.9	100.3	101.6
1863	102.4	84.1	91.1
1864	122.5	96.1	110.7
1865	100.3	88.2	107.4
1866	136.3	114.3	134.0
1867	127.9	107.9	123.2
1868	115.9	108.8	125.6
1869	113.2	100.2	112.3
1870	117.3	107.5	119.0
1871	122.9	112.7	122.9
1872	127.2	112.0	121.4
1873	122.0	106.4	114.5
1874	119.4	108.2	116.6
1875	113.4	106.5	114.6
1876	104.8	102.4	108.7
1877	104.4	103.0	107.0
1878	99.9	101.7	103.2
1879	96.6	96.6	95.0
1880	106.9	103.4	104.9
1881	105.7	105.8	108.4
1882	108.5	106.3	109.1
1883	106.0	104.5	106.6
1884	99.4	101.8	102.6
1885	93.0	95.4	93.3
1886	91.9	95.5	93.4
1887	92.6	96.2	94.5
1888	94.2	97.4	96.2
1889	94.2	99.0	98.5
1890	92.3	95.7	93.7
1891	92.2	96.2	94.4

In this table, from 1840 to 1860, the index numbers are the averages of 85 articles, grouped as

follows: Food, 30 articles; cloths and clothing, 9 articles; fuel and lighting, 1 article; metals and implements, 12 articles; lumber and building materials, 15 articles; drugs and chemicals, 15 articles; house furnishing goods, 2 articles; miscellaneous, 1 article. From 1860 to 1891 the index numbers are the averages of 223 articles grouped as follows: Food, 53 articles; cloths and clothing, 28 articles; fuel and lighting, 10 articles; metals and implements, 54 articles; lumber and building materials, 35 articles; drugs and chemicals, 18 articles; house-furnishing goods, 15 articles; miscellaneous, 10 articles. The first column index numbers are found by averaging all articles simply, giving to all an equal importance. The second column numbers are derived by giving to each article an importance proportional to its use in the family, and averaged with rent and certain other charges assumed as unchanged during the whole period. The third column numbers are derived by omitting rent and other assumed fixed charges from the average, but giving to other articles, constituting 68.60 per cent. of the total expenditure of the family, importance in proportion to the use of each article by the average family. The method of average of the third column gives a more reliable standard by which to determine the fluctuation in value of the legal monetary unit than either of the others. It will be observed that all prices of this table are gold, the currency prices of the years 1861 to 1878, inclusive, having been reduced to gold prices. But to show the fluctuation of the numerical unit of account (the legal monetary unit), we must compare prices in currency, prices determined by the legal dollar as the measure. The following table is the same as the preceding, except that prices given are coin from 1840 to 1860, currency from 1861 to 1878, and gold from 1879 to 1891 inclusive, prices in each case being in the measure of the period.

RELATIVE PRICES IN EACH YEAR, 1840–1891, IN CURRENCY, COIN, AND GOLD, FOR TWO HUNDRED AND TWENTY-THREE COMMODITES GROUPED BY DIFFERENT METHODS.

YEAR.	All articles simply averaged.	All articles averaged according to importance, certain expenditures being considered uniform.	All articles averaged according to importance, comprising 68.60 per cent. of total expenditure.
1840	116.8	98.5	97.7
1841	115.8	98.7	98.1
1842	107.8	93.2	90.1
1843	101.5	89.3	84.3
1844	101.9	89.8	85.0
1845	102.8	92.1	88.2
1846	106.4	96.7	95.2
1847	106.5	96.7	95.2
1848	101.4	92.0	88.3
1849	98.7	88.9	83.5
1850	102.3	92.6	89.2
1851	105.9	99.1	98.6
1852	102.7	98.5	97.9
1853	109.1	103.4	105.0
1854	112.9	103.4	105.0
1855	113.1	106.3	109.2
1856	113.2	108.5	112.3
1857	112.5	109.6	114.0
1858	101.8	109.1	113.2
1859	100.2	102.0	102.9
1860	100.0	100.0	100.0
1861	100.6	95.9	91.4
1862	117.3	102.8	104.1
1863	148.6	122.1	132.2
1864	190.5	149.4	172.1
1865	216.8	190.7	232.2
1866	191.0	160.2	187.7
1867	172.2	145.2	165.8
1868	160.5	150.7	173.9
1869	153.5	135.9	152.3
1870	142.3	130.4	144.4
1871	136.0	124.8	136.1
1872	138.8	122.2	132.4
1873	137.5	119.9	129.0
1874	133.0	120.5	129.9
1875	127.6	119.8	128.9
1876	118.2	115.5	122.6
1877	110.9	109.4	113.6
1878	101.3	103.1	104.6
1879	96.6	96.6	95.0
1880	106.9	103.4	104.9
1881	105.7	105.8	108.4
1882	108.5	106.3	109.1
1883	106.0	104.5	106.6
1884	99.4	101.8	102.6
1885	93.0	95.4	93.3
1886	91.9	95.5	93.4
1887	92.6	96.2	94.5
1888	94.2	97.4	96.2
1889	94.2	99.0	98.5
1890	92.3	95.7	93.7
1891	92.2	96.2	94.4

Wharton Barker of Philadelphia has compiled a table of index numbers of 100 staple commodities, the best table extant with which to supplement the Falkner tables of the Aldrich report. The table is constructed on the method of simple average, and, reduced to the standard of the Falkner table, 92.2 for 1891, may be taken as the continuation of column No. 1 of that table. The continuation of the table deduced from Barker's figures is as follows: —

1891	92.2	1896	75.6
1893	87.0	1897	73.4
1894	79.3	1898	77.0
1895	77.3	1899	78.4

From these tables it appears that general prices were in 1897 only about thirty-three and one-third per cent. of prices in 1865; about fifty per cent. of prices in 1870; about sixty-seven per cent. of prices in 1882; and about seventy-nine per cent. of the prices of 1891. This great decline of prices, it will be seen, has been a continuous taking of the debtors' wealth and placing it unearned into the pockets of the creditors. To show how all compilations indicate the same variability of general prices, but, on the whole, a decline during the last quarter of a century, summaries from three other tables will be given; viz., London prices as shown by the tables of Augustus Sauerbeck and of the London Economist, and Hamburg prices as shown by the tables of Adolph Soetbeer. The summaries only will be given in a single table, the averages in each being taken by giving all articles equal importance.

YEAR.	Average of 56 commodities in London compiled by Augustus Sauerbeck. Summary by simple average.	Average of 22 staple commodities, from table of London Economist. Simple average.	Average of 114 articles in Hamburg, from table of Adolph Soetbeer, continued 1888–91 by Mr. Heintz. Simple average.
1846	89		
1847	95		
1848	78		
1849	74		
1850	77		
1851	75	86.0	82.8
1852	78	76.9	84.1
1853	95	89.3	94.9
1854	102	100.8	100.2
1855	101	97.5	102.7
1856	101	101.7	101.9
1857	105	109.1	107.5
1858	91	98.3	93.8
1859	94	95.0	96.2
1860	99	100.0	100.0
1861	98	100.2	97.6
1862	101	109.0	101.4
1863	103	135.9	103.7
1864	105	144.8	106.9
1865	101	135.5	101.4
1866	102	133.0	104.0
1867	100	115.3	102.9
1868	99	99.3	100.8
1869	98	105.0	102.0
1870	96	105.5	101.6
1871	100	100.8	105.0
1872	109	108.8	112.1
1873	111	114.6	114.3
1874	102	110.2	112.6
1875	96	103.9	107.3
1876	95	102.4	106.1
1877	94	101.5	105.6
1878	87	94.1	99.7
1879	83	80.7	96.8
1880	88	92.2	100.8
1881	85	86.1	100.1
1882	84	88.4	100.0
1883	82	84.6	101.0
1884	76	82.5	94.4
1885	72	77.3	89 9
1886	69	73.3	86.0
1887	68	75.3	84.3
1888	70	80.0	84.3
1889	72	79.6	87.7
1890	72	82.3	89.4
1891	72	81.0	90.3
1892		78.0	
1893		76.7	

It could not be expected that these various tables would show exactly the same movement of prices, since they do not take the average of the same commodities. Again, if we were to take the same articles, the average would not be exactly the same, since some articles are more highly esteemed in one country than in another, and thus the prices of the articles in the two countries would vary from this cause. It will be seen, however, that there is an approximately parallel movement of prices as shown by all tables. Were we to take all commodities, giving to each the weight due to its importance in consumption, this parallelism would be much more noticeable.

If we take these tables as approximations to the real movement of prices in their respective countries, it must appear that an inequitable distribution of wealth has been effected where time contracts have been involved, by just the percentage of change in general prices.

SYNOPSIS OF CHAPTER V.—MONEY AS A MEANS OF DISTRIBUTION.

- MONEY
  - Preliminary
  - Section I The Standard
    - Preliminary
    - 1. Not Gold
      - *a.* Gold Measuring Gold
      - *b.* Weight not Value
      - *c.* Cheapened Production
    - 2. Not Any One Commodity
    - 3. Not the Precious Metals
    - 4. Not Labor
    - 5. The Average of Commodities
  - Section II — Distribution by Variability of Standard

CHAPTER VI.

DISTRIBUTION AS WAGES — WAGES-FUND THEORY — COMPETITION — BENEVOLENCE.

WERE we to premise a perfect state, in which perfect justice and brotherly love prevail, a perfect distributive unity added to a perfect, or complete, productive unity, there could be but two modes of distribution; to each producer a just reward for his services to society, as wages, and to each weak, sick, or unfortunate brother a bounty from the stronger and more fortunate members of society, as charity. But economics has to deal with problems as it finds them and with society as it exists; hence, while an ideal state may be useful as a standard for comparison, we must add to it actual limiting and modifying conditions, to trace the causes and extent of departure of the real state from the ideal. It will be useful in this connection to give a passing notice to a theory of distribution known as the *Wages-Fund* theory, since it is still quoted by some honest adherents of the old school of economists, and by others who seek by it to justify existing evils of distribution.

The Wages-Fund theory was propounded by Adam Smith, but was amplified and carried out to an extreme by John Stuart Mill and other European economists of the first half of the century. It is but justice to say that Mill abandoned the theory in the latter portion of his life, though he could not counteract the influence of the theory given such prominence in his work on political economy. The progress of the science has been toward the entire abandonment of the theory as a working hypothesis. The three propositions of the theory stated by Prof. J. Shield Nicholson are as follows: —

1. In any country at any time there is a determinate amount of capital unconditionally destined for the payment of labor. This is the wages-fund.

2. There is also a determinate number of laborers who must work, independently of the rate of wages; that is, whether the rate be high or low.

3. The wages-fund is distributed among the laborers solely by means of competition, masters competing with one another for labor, and laborers with one another for work, and thus the average rate of wages depends upon the proportion between wage capital and population.

In a perfect state, from which inequitable and despoliatory distribution have been eliminated, the wages-fund is the total product of the state less taxes for support of government and public charities. From this fund each producer draws his distributive portion, either equally to each individual, or in proportion to the service rendered by each productive unit. In this statement each single individual may represent a productive unit, drawing from the fund for himself; or the family may be taken as the productive unit, the head of each drawing the distributive share of the family and making the distribution to its individual members. In such a state all but the beneficiaries of public charity are producers and wage earners, and all are consumers.

But in the real state, to find the wages-fund, we must deduct from the total product of the state in value, (1) government taxes; (2) losses by fire and the elements; (3) unearned increments of value in land, patents, money; (4) the spoils of debt, speculation, gambling, war, and crime. Since the product of the state is a variable and indeterminate quantity; and further, since the deductions from this product are all variable, depending on many conditions and circumstances not calculable or to be foretold, it follows that the wages-fund can not, by even a rough approximation, be "a determinate amount of capital unconditionally destined for the payment of labor." The wages-fund, which is the remainder after deducting an uncertain subtrahend from an uncertain minuend, must be even more uncertain than the elements from which it is derived.

Neither is there any truth in the second proposition. Though in the ideal state all units may be regarded as productive, except those which are objects of charity, in the real state there are two great classes which bear a constantly varying proportion to each other — the producing and the non-producing classes. As the real state may approach the ideal, the former class increases until it reaches an approximate totality of population; but, with increasing inequitable and despoliatory distribution, the non-producing class is correspondingly increased. This increase takes place in two directions: the first, in increased pauperism to be provided for by taxation or private charity; the second, in an increased number of wealthy drones who live luxuriously on wealth which they had no part in producing, but which has been filched from the producing class. From this statement it is not to be inferred that all the wealthy are non-producers; on the contrary, many of the wealthy are the greatest agents in production. It is only those parasites who serve no useful purpose to the state, who are referred to as swelling the ranks of non-producers — those who study, not how they can benefit society most, but how they can get the most from society for no service rendered, or for the smallest possible service. The "number of laborers who must work," therefore, "independently of the rate of wages" can not be "determinate," but must vary with varying conditions of distribution.

The third proposition likewise involves a fatal error. It is true that masters of production do often compete for labor; but it is true that they often band themselves together to limit production, force down the rate of wages by discharging men from their employ who refuse their reduced schedules, — thus, at the same time forcing the prices of their product up and the rate of wages down. It is true that laborers do generally compete with each other for work; but they often, following the example of their employers, band themselves together in trade unions to raise the rate of wages. Though they are less often successful than the employer class, they do, without doubt, many times better their condition by concerted action in demanding a higher rate of wages.

Competition.— Of the simple and direct means of distribution, competition is of the first importance. As to its subjective origin, it is the operation of selfishness, egoism, or individualism — three terms used synonymously in economics. In its application to wages its operation is twofold. First, labor is in lieu of a commodity and employers are the competing agents. In this case the value of the commodity, the wage rate, is determined by the law of supply and demand, or the formula of value, $kv = \frac{u\ n\ l\ t}{a}$, slightly modified as to signification of the elements. In this case u represents urgency of desire on the part of employer; n, the number of employers; l, the loss sustained by not employing labor; and t, the time which will on the average elapse before the employer can fill a vacancy in his force of help; while a represents the number seeking employment. Second, we may consider the laborers as the competing agents, and work the commodity in the market. The law holds true in this case, with this difference as to the signification of the letters representing the elements of value: u represents the urgency, or force, which impels the laborer to seek work; n, the number of laborers seeking it; l, the estimate of loss by being out of employment; t, the length of time to find the kind of job which the laborer wishes; and a, the number of employ~~es~~ers seeking ~~employment~~ labor.

The operation of competition on wages is easily seen by an illustration. Assume a state in which all laborers are employed and all drawing an equal wage. Some employments are less desirable than others for various reasons, such as irksomeness, danger attending their pursuit, and injury to health. The rate of wages being equal, laborers would leave such occupations for those more desirable, and employers would be obliged to advance the rate of wages until this inducement would be sufficient to counterbalance the effect of the undesirable features of such occupations in driving labor away. Likewise, the desirable occupations would attract labor to them, until employers, seeing an opportunity for gain in so doing, reduce the rate of wages to such an extent that the undesirableness of the occupations in this regard counterbalance the effect of the desirable features. Thus, competition alone, starting with an equal wage for all laborers, would establish an equilibrium of wages at unequal rates, based on the desirableness of the occupation as compared to others.

The illustration, as so far given, assumes an equal capacity, an equal physical and mental ability on the part of laborers. But it is to be observed that there is the greatest variety, not only in the demands of various occupations, but also in the natural and acquired abilities of laborers. One class of occupations requires but the lowest degree of intelligence, preparation, and skill; and in these there is, therefore, the greatest preponderance in the number of the laborers and the greatest ease in passing from one occupation to another. Another class of occupations requires greater intelligence, greater skill, and a longer apprenticeship. Fewer individuals are fitted by nature and training for these occupations; and there is, for these reasons, difficulty in passing from the lower class to the higher, and more difficulty, than in the lower class, in passing from one occupation to another within the class. As we pass along up the scale of occupations, we find more and more difficulty in passing from the lower to the higher class, and more difficulty, as well, in passing from one occupation to another within the class. In the highest professional and technical occupations there is required, not only great natural endowments, but, perhaps, nearly a lifetime of training. In these it is well nigh, if not quite, impossible to pass from one occupation to another in the same class.

From what precedes it is easy to see the operation of competition upon wages in a highly organized mechanism like the modern state. The lowest rank, or class, of occupations is most crowded by laborers seeking employment; there is, therefore, more competition of laborers and less competition of employers in these classes. As a result, wages in these occupations are at the lowest rate. Occupations of higher ranks must offer a higher and higher reward to induce individuals to put forth the effort required to prepare themselves for these occupations. Competition, in its immediate effects, is mostly confined within the occupation, or to the same class of occupations; because, as a rule, immediate changes can not be made from one to another. But in time the competition of one class must reach every class. If there be a great shortage of laborers in any one class, or the demand be increased for any other cause, it will be recruited in time from other occupations, both higher and lower, because of the increased inducement in the advance of wages due to increased demand. It must be here observed that competition, were there no conflicting causes, would so regulate the rate of wages in the classes, and between them, that each individual would be rewarded in proportion to the value of the service he performs for society, and would establish and enforce the maxim, "To the producer belongs that which he produces." The same principles apply in determining the value of labor as in determining the value of any commodity; and the application of the principle of competition to the determination of wages in various occupations is the same as the application of the principle of supply and demand to commodities.

Benevolence.— It may be thought that benevolence has no place in political economy as a factor in determining wages; and it must be confessed that it has had comparatively little influence in the past. Throughout the historical period man has been actuated more by selfish, or egoistic, than by the benevolent, or altruistic, motives. Yet the benevolent faculties are held in higher and higher esteem by all mankind, and they have already done something toward the equalization of wages. In the family, altruistic motives quite generally prevail, the parent rewarding his children equally; not for equal service, but for equal good will. To those who do the best they can, he measures out equal rewards to the physically or mentally strong and to the weak and feeble minded. Sometimes, indeed, weakness brings from him greater reward by sympathy, and to make amends in a measure for lack of endowments by nature. One school of socialism now proclaims the principle of equal rewards for labor to all members of the state, regardless of abilities to render service to society. There is one direction, especially, outside the family, in which the growth of the benevolent faculties has tended toward an equalization of wages, and that is the bringing up of the wages of women more nearly to an equality with those of men. While there are doubtless other causes, there can be little doubt that the

growth of the altruistic spirit during the last generation or more has had much to do with it. It is also in the order in which we would expect the development; viz., that its appearance should be first in the family to the exclusion of the selfish principle of competition; that it should be extended outside the family first to woman; that next it should be extended to members of the same state; and that, finally, it should be extended to the whole race as one brotherhood. While it is not safe to predict to what extent benevolence will in future be powerful to equalize wages, it is not too much to say that we may expect it to greatly modify the strict application of the principle of competition.

The subject matter of this chapter may be summarized in the three following paragraphs: —

1. The wages-fund is the total product of industry less fixed salaries of government employés, less unearned increments of value, and less the total despoliatory distribution of values produced.

2. Competition, as a force in distribution, tends to the equilibration of wages of labor in accordance with the rule of reward in proportion to the service rendered.

3. Benevolence, as a force in distribution, tends to the charitable distribution of wealth among willing workers in accordance with needs. It therefore tends to the equalization of wages, rather regarding the good will to perform services than the actual performance for which wages are received.

CHAPTER VII.

DISTRIBUTION AS WAGES — LEGISLATION, BUSINESS ACUMEN, DECEPTION, MONOPOLY.

Legislation.—As a means of distribution affecting wages, *legislation* is doubtless next in importance to competition. While the latter is the great force in equilibrating wages in accordance with the principle of rewards in proportion to service, legislation may establish the conditions favorable to free and unrestricted competition, or it may establish conditions which render competition quite inoperative. That legislation which reduces to a minimum, crime, cheating, and the modes of filching from society as unearned increments, which destroys monopolies, excepting those granted to secure a just reward to inventors, discoverers, and authors, must leave a larger and larger portion of the product of labor to be distributed to the producers of wealth according to the law of competition — *to each a reward in proportion to the service he renders* — and thus increase the rate of wages. Legislation which distributes the burden of taxation equitably is also a condition of high-wage rate, since a larger burden is thrown upon the wealthy non-producer, and, therefore, a larger portion of the total production of wealth is left for distribution among those who produce it. On the other hand, legislation which throws the burden of taxation on consumption, or in any way upon the laboring classes,

promotes inequitable distribution; since the failure to tax the wealthy in proportion to the protection and advantages they enjoy under the law, is equivalent in its results on distribution to the forcible taking of wealth from the masses of producers without giving them an equivalent in return. Finally, legislation to a great degree directs the flow of wealth in distribution in a variety of ways: by fixing the rules of inheritance and entail; by its control of money and credit, or by the surrender of this control to a certain class; by its regulation of trade; by enactments favoring certain classes, or trades; by grant of special powers and franchises to corporations; by patent and copyright laws; by bankruptcy laws; and by many others which might be enumerated. In legislation, considered as a means of distribution, we include all the functions of government, legislative, executive, and judicial; and so important a means is it, that no just and equitable distribution can be secured without it. The older economists of the Manchester school laid down as a principle the doctrine of *laissez faire;* that governments should pursue the "let alone" policy, as to business transactions, and confine themselves to the restraint of criminal classes, the protection of personal and property rights. The doctrine assumes that no evil can be done in the business world, except what is catalogued as a crime; and, further, it insists that no law shall be made whose intent is to regulate business. It is an application of the principles of anarchism to business. The prime tenet of anarchism is that society will regulate itself, if all individuals are permitted to act with complete freedom, unrestrained by laws; and it insists that no laws shall be enacted whereby individuals are limited in their freedom of action. So *laissez faire* teaches that business will regulate itself, if "let alone" and placed under no restraints of law. The doctrine has been so thoroughly refuted and demolished by many recent writers, notably Henry C. Carey, that it deserves but a passing paragraph. It is, perhaps, sufficient refutation to the doctrine to observe that no country has ever yet been able to apply the doctrines of anarchism to business successfully, any more than to the social world. The strong arm of the law is as necessary to restrain the grasping greed of aggregations of wealth, like the great corporations and trusts, as in the restraint of marauding robber bands.

Business Acumen.— *Business acumen* may be defined as the perspicacity of mind which enables the individual, in business transactions, to make ventures which will afford him a profit, and to avoid those which will subject him to loss. It may be remarked that no one is so endowed by nature as to enable him to be always on the winning side of a business venture; but there is found to be a great diversity of powers in this regard, some being so devoid of business acumen that they can be easily induced to embark in any visionary scheme which may be presented to them.

It is evident, without argument, that an equal endowment of business acumen by all individuals would be favorable, not only to equitable distribution, but equality of distribution as well. Furthermore, inequality of endowment allows those most highly favored by nature to take from the total product more than their equitable share, while their more unfortunate brothers must be content with a distributive share less than they really earn.

Deception.— When we add to business acumen, as a means of distribution, *deception*, superior intellectual powers, coupled with dishonesty of purpose, are arrayed against simplicity of mind and honesty of purpose. Of such a struggle there can be but one result; might prevails; industrious toilers are plundered by parasites, who choose to live by their wits rather than by honest labor. Wealth appropriated in this manner, and by such means, reduces the total amount which can be distributed as wages, in like manner to stealth, robbery, and other appropriations of wealth by violent and unlawful means.

Monopoly.— The last of the direct means, here to be considered in their effect upon wages, is *monopoly*. Competition is a discrete movement of individual forces, each producing separate effects in proportion to the magnitude of the force diminished by the forces conflicting with it. Monopoly, on the other hand, is a concrete, or concerted, movement of forces, by which a total result is secured in proportion to the sum of the forces, conflicting forces being eliminated. Where monopoly is maintained, there can be no competition, and vice versa.

First, in its effect on wages, let us discuss monopoly of industry. When any set of men get possession and control of the means of production in any industry, they have, by their concerted action, two advantages over society: they can limit the product, or supply to be placed upon the market, and, the demand remaining the same, the price must rise; again, by limiting the product, they employ fewer men, increase competition of laborers, and thus directly reduce wages. Besides reducing wages directly by increasing the number of unemployed, monopoly reduces wages indirectly; it takes from consumers of the product an unjustly high price, leaving them so much less of wealth to be expended for other products, and thus leaves a smaller total of wealth to be distributed to the laborers of other industries. The net result of monopoly of an industry, therefore, is to increase the reward, or return, of those holding and operating the monopoly, as an unearned increment, and at the same time diminish production, consumption, and the net rate of wages of those engaged in that and other industries. If a monopoly be sustained in several industries, then the diminishing return, as wages, falls on those industries in which prices are regulated by competition, and on the wages to employés of such industries more largely; but to a degree the reduction is felt by all producers, except those who, as employers in monopolized industries, enjoy the return of unearned increments in profits. There are, in all modern civilized states, many more or less completely sustained monopolies.

There are, besides monopolies sustained by concerted action of men, legal monopolies, created by law as inducements to talent and ingenuity to find new truths and processes by which the condition of men may be ameliorated. Such are the monopolies granted by law, as patents and copyrights. The purpose of legal monopolies is high and laudable, and they have, doubtless, greatly hastened the progress of modern literary and industrial improvements, conferring inestimable benefits upon the human race; but they have

also been the subjects of great abuses. Many legal monopolies have been the means of extorting from society fabulous fortunes for those to whom little credit is due, while the inventors who have conferred so great benefits upon society go almost, if not quite, unrewarded. Legal monopolies, could adequate restrictions, limitations, and safeguards be thrown about them, might prove not only great forces in production, but also not antagonistic to an equitable distribution of wealth. In practice they have proved to be factors promoting inequitable and despoliatory distribution.

Finally, we have to consider the effect upon wages generally of a monopoly of labor, appearing in the modern industrial system as organization of labor in trades unions, and fraternal orders whose chief purpose is to defend wage earners from the tyrannical power exercised by organized wealth over employés and their wages.

Organized labor has not, until in recent years, had great influence in maintaining the rate of wages of its members. This lack of power has generally been due to imperfect organization. The orders were often made up largely by illiterate men, moved more by prejudice and passion than by reason Their leaders, too, often lacked that breadth of mind and vision which would enable them to see and respect the rights of other elements of society. As a result of such imperfect organization, their strikes and boycotts generally resulted disastrously to society, but more so to themselves than to any other elements. In recent years, however, the employé classes have greatly increased in breadth of mind by the advantage taken of our free-school system; they, too, have attained skill in organization by experience; and in the same school they have learned moderation and deliberation. While it must be admitted that their strikes have rarely bettered their condition, it is doubtless true that labor organizations have, by their concerted demands, gained many concessions which they would not otherwise have enjoyed. It is an organization of employés against one of employers, or exploiters of labor. The former works under many disadvantages, when compared to the latter, but employés are in much better condition as to the rate of their wages than they would have been had no resistance been made. And, with a continual increase in the number of orders and membership, in the intelligence of the members, and in their disposition to carry their grievances to the polls, it would be no matter of surprise were the monopoly of labor in time to exceed in power the monopoly of industries. This monopoly might extend only to the maintenance of a just rate of wages for the employé class, or it might even extend to an inequitable distribution, were there a considerable proportion of employés not members of unions. It could not probably extend to the annihilation of profits to the exploiting class; for employers would cease to invest their capital in industry, were profits to be destroyed.

There is a possible extension of the organization of labor which should not be passed unnoticed. Were the increase in membership of the orders and the intelligence of the members to continue, together with the perfection and complexity of organization, we can see how this development might result in the assumption of the control of industries and government as well. In such case, state socialism would succeed, in order of development, our present systems of competitive labor and monopolized industry. To summarize the foregoing, we conclude : —

1. That legislation favors equitable or inequitable and despoliatory distribution as wages, according as the legislation is good or bad. Good legislation has for its object the reduction of inequitable and despoliatory distribution to a minimum, thus promoting the highest material prosperity.

2. Business acumen, like other intellectual faculties, is to the advantage of its possessor in proportion to the degree in which it is possessed. While it favors unequal distribution as reward of labor, it does not necessarily favor inequitable or despoliatory distribution.

3. Deception, as a means of distribution, tends wholly to inequitable and despoliatory distribution.

4. Monopoly rewards in accordance with the principle, "to the strong belongs the booty." Its tendency is wholly, when exercised by private individuals and corporations, to inequitable and despoliatory distribution of wealth, and hence is a factor destructive of the material prosperity of a people.

CHAPTER VIII.

DISTRIBUTION AS WAGES — TRANSPORTATION — CREDIT — MONEY.

THUS far in the discussion the term "wages" has been used in two senses: sometimes in its most extended sense, the reward which any individual member of the state receives for the performance of a service to society in general, to any component part of society, or the state; and in the narrower sense, as the sum, fixed by agreement, paid by employers to employés. But in order that we may separate, in our analysis, equitable from inequitable wages and spoliation, it will be necessary to distinguish the two senses in which the term "wages" is used. In most cases the context will indicate the sense. If, however, it be found desirable to speak of the reward of employers and exploiters generally as wages, it may be designated as "employers'" or "exploiters' wages." Such wages, as will hereafter appear, are included in profits, rent, royalty, and interest. If it be found necessary to distinguish wages of employés from wages of exploiters or from wages generally, the terms "employés' wages" or "wages of employés" may be used.

Transportation, credit, and money have been discussed as to their general effects in distribution, but they also require consideration as to their effect on wages of employés.

Transportation.— Transportation companies are always more or less perfectly sustained monopolies. First, the monopoly is perfectly sustained as to points where there are no competing carriers. Secondly, at competing points, agreements as to rates, or pools, are quite generally formed, which provide for a division of freights and fares collected at some agreed percentage to each carrier in the combination. In such cases the monopoly is perfectly sustained, and the carrier is in the position of the miller who, without competition, takes toll according to rules laid down by himself, which toll sometimes amounts to nearly the whole grist. It is evident that monopolies of transportation, like those of other industries, may, by concerted action, raise their rates of carriage, and, at the same time, cut down the rate of wages of their employés,— within certain limits, fix the tax levied on goods transported, and limit their expenditures for wages. But monopoly of transportation affects wages in a way more indirect, but more generally and more seriously. If carriers' rates be raised higher and higher, a limit will finally be reached at which the difference between the cost of production and the market price of commodities at points of scarcity and demand will be all absorbed in transportation rates. Production must then cease, laborers be thown out of employment, until the competition of labor reduce wages and the cost of production sufficiently to allow the employer of labor a profit. Then production would again be revived, and increase until rates of transportation be still further raised to absorb employers' profits, wages be again reduced, and so on in a *vicious circle*, or continuously descending spiral of wage-reduction. In practice, carriers do not often raise transportation rates to the extent of absorbing all the profits of productive industry, but they endeavor to raise the price of carriage as high as possible and still allow to productive industry profits sufficient to continue the larger number of industries in operation. For a policy which would destroy the productive industry of a state would likewise destroy the carrying trade. Nor, indeed, have carriers generally been able to advance their rates to the extent of absorbing the major portion of producers' profits ; for competition among carriers has been in past a great and powerful agent in reducing the cost of transportation. But those who have observed the tendency toward consolidation and the establishment of pools, passenger and traffic associations, have observed that competition has been a diminishing factor in establishing rates during the last quarter of a century or more. The tendency of transportation has been to take a larger and larger share of the common product of industry. And it is here seen that the general law of distribution holds true of transportation as of all other industries : *If transportation take a larger and larger portion of the general product for carriage, a smaller and smaller portion must be left for distribution among other classes by the various factors of distribution.* This statement, of course, presupposes that the portions spoken of be estimated as percentages of the whole product, thus eliminating whatever variability there may be, from time to time, in the total product.

From what precedes we must conclude that—

Transportation, as it approaches industry under free and full competition, tends to equilibrate the wages of its employés with those of other industries in accordance with the principle of reward in proportion to service; but as it approaches a complete monopoly, its tendency is to reduce, not only the wages of its own employés, but all employés' wages, to a lower and lower level.

Credit.—Credit may affect wages generally through bankruptcy, abstracting smaller or larger sums from the gross product of labor, leaving larger or smaller net sums for distribution; but the most important effect to be considered in this chapter is that through the change in value of the numerical unit of account. This effect of credit on wages, in distribution, is most conveniently considered in connection with that of money, which has a like effect.

Money.—No system of money has in practice given a standard of value perfectly stable, and it is through the instability of the measure that wages are affected. Were there no debts or time contracts, and were all prices to respond instantly to a change in the measure, no injury could result to the wage earner, or advantage be gained by him, through a change in the value of the legal monetary unit. A sudden rise or fall in prices, including wages, while making an apparent change,—a change in nominal wages merely,—could not change real wages, or the buying power of labor ; for all prices rising and falling together and proportionately, the same labor would always purchase the same amount of commodities generally. But a change in general prices does not, in fact, affect prices of commodities simultaneously with each other or with wages. A cause which gives an upward or downward impulse to prices is found to affect commodities in order of proximity to immediate wants, or in order of salability; the more easily salable being affected first, and the most difficultly salable, last. For example, if a law were to take immediate effect giving to every half dollar the power in exchange of a dollar, and other pieces of money a power double that of its nominal value, prices would not be immediately doubled, as many suppose, but would observe an order of advance, as shown by Alexander Del Mar, in his "Science of Money," as follows:—

1. Bullion. 2. Stocks and bonds. 3. Shares of incorporated companies. 4. "Staples," or crude and imperishable commodities. 5. Merchandise, including perishable commodities, crude articles of subsistence, etc. 6. Fabrics, such as machinery, manufactured food, articles of wear, etc. 7. Landed property, or real estate. 8. Skilled labor, or artisans' wages. 9. Unskilled labor, or wages of laborers, soldiers, seamen, etc. 10. Professional services, or the emolument of authors, inventors, engineers, clergymen, accountants, and other professional and clerical classes.

Thus, bullion, belonging to class 1, is more readily salable than a government bond, belonging to class 2; or a railway bond, belonging to class 3; or a bale of cotton, belonging to class 4; while the latter is more marketable than a sack of flour, belonging to class 5; or a piece of cloth, belonging to class 6; and so on. All kinds of movable commodities are more readily salable than land; while land commonly commands a readier market than labor or professional services. If the cause operate to depress general prices, the fall in

prices takes place in the same order. Mr. Del Mar designates this law, which has been established both from a study of actual prices and deductively from *a priori* considerations, the "precession of prices."

This law apparently gives professional men and laborers of all classes an advantage in falling prices, since the fall in the price of their services lags behind that of the commodities entering into the cost of living; and this would be strictly true, were all industries and businesses to continue with the same activity under declining prices as under stationary prices. But this lagging of prices continually operates to increase manufacturers' cost of production as compared to the market price of their products; and with this increase of cost, comes vanishing profits and gradual cessations and relaxations of industry and business. With decline of industry, come men out of employment, work on half time, quarter time, etc. So, while a day's wage will have a greater purchasing power, on the average, under declining prices than under rising or stationary prices, the total wage for the employé class will have much less purchasing power under declining prices. A laborer may appear to be prosperous at $2 per day; but, if he be employed but one hundred and fifty days in a year, he would be much more prosperous if employed three hundred days at $1.75 per day.

Many statisticians, among whom may be mentioned Edward Atkinson, have pointed to the law of lagging prices, and have quoted tables of wage-prices to sustain the contention that wage-earning classes are benefited by a general decline of prices. The history of all nations in all times has denied the truth of the deduction, by holding before us the pictures of want and misery which have always attended periods of falling prices — when competence of laborers has given place to bare comfort, comfort to want, and want to pauperism and crime. The strangulation of industry due to declining prices, which will hereafter be discussed in connection with the consideration of the effect of money on profits, in destroying industry, destroys labor simultaneously, and it is this effect which Mr. Atkinson and his co-laborers, in proving the beneficence of the gold standard of value and consequent declining prices, have quite overlooked.

Again, it would appear that a general advance in prices would be disadvantageous to employés, since employés' wages advance more slowly than the prices of articles which enter into the expense of living, giving wages relatively less purchasing power. This, too, would be a correct deduction, if business and industry were stationary under advancing prices. But the lagging of prices here operates to make the manufacturers' cost of production less, when compared to the advancing market price of his product; and under the stimulating effect of increasing profits, all business and industry are expanded, requiring all productive energies, including labor, to be used at a maximum effectiveness. And though the advance in the price of labor lag behind that in the prices of commodities, the utilization of all his time gives the laborer a great advantage over the same class under conditions of falling prices. In harmony with these deductions, experience has shown that the middle and lower classes — the laboring, or industrial, classes — have prospered much more in the accumulation of

wealth and in the enjoyment of greater comforts and luxuries in its consumption, in periods of rising prices than in periods of stationary or falling prices. Several minor, indirect, and reflexive effects of rising prices, operating to increase wages, such as relief of debtors and reduction of taxation, might also be traced; but enough has been said to show, in conjunction with the confirmatory evidence of history, that rising prices are far better for the laboring classes than falling prices, if not better than stationary prices, the benefit being estimated by the buying power of the total wage received. As has before been shown, credit is inseparably connected with money as a factor in determining the value of the numerical unit of account, and what holds true of money as a factor affecting wages, applies with equal force to credit. Therefore, in speaking of the expansion or contraction of money, unless limited by some modifying word or clause, we use the term in its more general signification as including credit. In conclusion, we summarize the conditions of the indirect means in promoting equitable distribution of wealth as employés' wages, as follows: —

1. Transportation which takes the smallest possible amount from the general fund of production is most favorable to distribution of wealth as wages to all other industries; but transportation subject to the fullest and freest competition equilibrates wages of transportation with those of other industries in accordance with the principle of rewards in proportion to service.

2. Could inequitable and despoliatory modes of distribution be eliminated, such a volume of money *and credit as would preserve general prices constant would be most favorable to equitable distribution of wealth as wages; but, in practice, such a volume of money and credit as will cause a gradual and constant rise in general prices favors equitable distribution as wages.*

CHAPTER IX.

DISTRIBUTION AS PROFITS — COMPETITION AND MONOPOLY.

PROFITS are the return of capital, the reward or gain of wealth devoted to the production of wealth. Just what reward such wealth shall draw from the general fund is a mooted ethical and industrial question; but none, aside from a few of the more radical and extreme socialists, deny the equity of a reward paid for the use of wealth devoted to the production of more wealth. In practice it is easy to see that men would not put their wealth into production if there were no reward to capital. Were profits to be eliminated from distribution, all selfish motives of the human mind would conspire to move all owners of wealth, of whatever class, to transform it into the one form, fruendal, which is immediately devoted to the satisfaction of wants. For, he reasons, why should I use the product of my labor to increase the general fund of useful and valuable commodities, if I can not derive a benefit thereby? As society is at present organized, capital has its reward in profits, and competition is the chief equilibrating force by which the share of wealth distributed as profits is determined. Let us first discover the conditions which determine what portion of wealth shall be devoted to production as capital and what to consumption as fruendal.

Capital vs. Fruendal.— In civilized states there is ever a competition between the two great classes of wealth, *capital* and *fruendal.* The possessor of wealth considers this question: Can I best satisfy my wants by consuming and enjoying my possessions, or shall I make use of my wealth as a means to produce or procure greater wealth, which will afford me at some future time greater satisfaction than the present consumption of it can afford? Few, in the solution of this problem for themselves, decide to devote all their possessions to present enjoyment, while none can devote all to production. But the conditions so vary that at one time production claims a larger and increasing share of wealth as capital, and at another, a larger and increasing share is devoted to consumption as fruendal. The one condition — itself the resultant of many others — which determines this ratio between capital and fruendal is the rate of profit. If a man can, by investing his wealth in industry, double it in ten years, he will devote a larger share of his possessions to production than if he could double it only in twenty years. The larger future reward induces him to deprive himself of many luxuries and comforts of life which he would otherwise enjoy. To state the principle generally, we must conclude:—

The larger the profits of industry, the more is wealth attracted to industry as capital, and the smaller percentage of wealth is there remaining to be devoted to consumption as fruendal; and vice versa.

Such a competition would, in the one case, tend to increase production beyond the needs of consumption, and thus reduce prices and profits by competition of commodities; and, in the other case, to diminish production until the demands of consumption increase prices and profits. It would be a regulative force preventing extremely high profits on the one hand and extremely low rate of profits on the other.

Capital vs. Labor.— Besides the competition of the two classes of wealth, there is a competition of capital and labor in production. Any cause which makes the reward of capital large in proportion to the reward of labor as wages, causes a continual desertion of the laboring class to the capitalistic or employer class as fast as laborers can save sufficient of their earnings with which to engage in production, first as laborer and capitalist combined, and then as a capitalist, or employer and exploiter of labor. On the other hand, if the profits of capital decline so that the wages of labor are the better reward, then industries decline, and men are driven from the ranks of employers to those of employés by bankruptcy; and thus the competition among the members of one class is diminished while that of the other is increased. To state the operation of competition of capital and labor generally: —

The greater the profits of industry, the more will laborers be attracted from the ranks of employés to those of employers, increasing the competition of the one class and reducing that of the other; and vice versa.

It will be observed that the competition between capital and labor is a force tending to equilibrate profits with wages; that is, tending to prevent an extremely high rate of profits and low rate of wages, or extremely high rate of wages and low rate of profits.

Industry vs. Industry. — A third form of competition affecting profits is that of one industry with another. If one particular line of production proves more than ordinarily profitable to those investing capital in it, this fact is soon learned by others, and more and more capital is invested in it, until the product is so increased in proportion to demand, that prices are reduced, and profits equalized with those of other industries. Or, if profits in an industry be extremely low, capital will be withdrawn from it to engage in more profitable enterprises, and thus the curtailed production will be the means of enhancing prices and restoring profits to an approximate equality with those of other industries.

The greater the profits of an industry, the more is capital withdrawn from less profitable industries, increasing the competition within the industry, lessening that of all the less profitable industries; and vice versa.

And thus competition of industry with industry tends to equalize the profits of all industries with each other.

Varying Rate of Change. — While the tendency of competition, as shown by the preceding paragraphs, is to the equilibration of profits with each other and with wages, and to regulate or limit the maximum or minimum of production, these influences are not instantaneous in their operation, but require a lapse of time in which to effect the changes in the relation of profits to wages and capital to fruendal. Those industries which require the largest investment of fixed capital, as machines designed for one specified purpose, are slowest to change. If there be an attempt

to change the industry into one of a different kind, this fixed capital is almost, if not quite, a total loss; so those engaged in such industries continue, even though profits be small, that they may not suffer the loss of their wealth invested as fixed capital, and only cease operations entirely when profits disappear. And the more mutable the capital invested in the industry, the more susceptible is that industry to change by increase or diminution, and the more quickly does it respond to the action of causes tending to produce such change. It likewise appears that those industries which require on the part of the laborers the longest period of preparatory service, or apprenticeship, are affected most tardily as to changes in magnitude and consequent changes in rate of profits, by causes reaching them through labor.

The operation of the other means of distribution has been, with one exception, perhaps, discussed with sufficient fulness in preceding chapters, under wages, in which profits were considered as included. And were profits and wages equilibrated by competition alone, there would be no sufficient reason for distinguishing profits from wages. But since, by the operation of monopoly, profits are often placed in a position, not of competitive antagonism, but of controlling supremacy to wages, this means deserves especial consideration in this connection.

Monopoly and Profits.—As shown in Chapter VI, monopoly and competition are incompatible with each other; in so far as monopoly appears competition disappears; when monopoly is complete, competition has vanished. A monopoly of industry seeks to control all the forces and means of production and transportation; with these in control the market is likewise in control. In a completely sustained monopoly the problem of profits is reduced to this: How much may the price of the commodity under control be advanced that the consequent curtailment of consumption shall not equal, as a diminishing factor, the advance in price; or, more exactly, how shall price be fixed that the total consumption under that price shall yield the largest total profit? If the article controlled be one of the necessities of life, the limit is not reached until all the product of labor, above that required for subsistence, is absorbed into the profits of the monopoly. To bring out the operation of monopoly into the strongest light, suppose a syndicate had gathered all the oxygen from the air and had it confined in its reservoirs; that all people were obliged to carry their reservoirs of condensed oxygen from which to breathe, as nature requires; what price could not the syndicate get for this vivifying and life-sustaining element? It could require all men to place the product of their toil at the feet of the oxygen lords for just enough oxygen to keep them in health and strength to toil for the lords. Yes, it could do more; it would restrict the sale of oxygen to such an extent, by fixing the price beyond the reach of many, until they die of asphyxiation, as now many die of starvation in lands where the few know no want, but live in riotous living off the fat of the land. A monopoly of land, water, or food products, would be as powerful in its complete control over men, holding them suspended between life and death, and continually plunging the weaker into that dread, unknown abyss. Henry Demarest Lloyd, in his work, "Wealth vs. the Commonwealth," enumerates nearly four hundred more or less completely sustained monopolies in this country, many of which fix prices arbitrarily without any restriction of law, and with little or no hindrance from competition. And the year 1898 and the first four months of 1899 have witnessed the formation of great combinations of capital unparalleled in the history of any country.

The monopolies which are typical for their gigantic proportions and completeness of control are the "Standard Oil," and the anthracite coal monopolies. It is no unusual thing for the former to raise the price of refined oil, which it sells, and at the same time reduce the price of crude oil, which it buys, thus levying tribute from the consumer on the one hand, and the producers of crude oil on the other. Or, should some competition be discovered somewhere, refined oil is dropped and crude oil is raised until profits disappear, and competition is snuffed out. The anthracite coal trust regularly fixes its schedules of prices, making them lower in the summer months, merely to induce the more wealthy dealers to buy in the middle of the summer and thus keep the shipments of coal continuous throughout the year. It occasionally fixes the price of coal so high that the farmers of the western prairies find it more economical for them to burn corn. The growth of monopolies in number and power since 1860 has been so great that they have justly been characterized as a menace to civilization. They stand at the gateways of commerce and levy tribute as seemeth good unto them, from all who pass with their wares. They reach out and lay hold of the sources and means of production, that all may sell to them their crude products, and that all may come to them to buy the finished article.

The effect of monopoly upon profits of monopolized industries is greatly to increase such profits; the more so, the more complete in control the monopoly, and the more necessary the article monopolized be to subsistence. The effect of monopoly upon the profits of industries not monopolized is to diminish profits; since the larger and larger share of the total product taken by the monopolies leaves a smaller and smaller share to be distributed to the elements of society outside the circle of monopoly beneficiaries.

CHAPTER X.

DISTRIBUTION AS PROFITS: THE INDIRECT MEANS—TRANSPORTATION—CREDIT AND MONEY.

The effect of the indirect means of distribution on profits is similar to their effect upon wages, and they therefore demand but brief consideration in this chapter.

Transportation Affecting Profits.—It is evident without argumentation that the conditions of transportation most favorable to the equalization of profits with wages are the lowest transportation cost and the most rapid transit. Such conditions permit commodities most rapidly and cheaply to be brought from locations of plenty to those of scarcity, thus equalizing the distribution of utilities, and allowing the most nearly perfect operation of competition to level prices and profits. With costless and instantaneous transportation, differences in cost of commodities in different locations would disappear, all such prices finding a level as water in a pond. But if we introduce cost of transportation, then prices would differ between places of plenty and scarcity by the cost of transportation from the former to the latter. Again, if we introduce the element of time in transportation, differences in the prices of the same commodity in different places will vary not only in proportion to cost of transportation from the place of plenty to that of scarcity, but somewhat also in proportion to the time required for transportation. And, further, it appears that monopoly of transportation would favor monopoly of products in market, since the former could prevent reduction by foreign competition, of selling prices of commodities in the market, by levying an arbitrary tax upon competing commodities from a distance.

Again, a low cost of transportation draws less from the total fund of wealth to be distributed as wages and profits; it is, therefore, the condition of higher profits in all industries except transportation. And contrariwise, controlled transportation, making high profits in that industry, diminishes profits in the other industries, except those assisted in the monopolization of markets. Monopolies of industry and markets are usually built up by discriminating rates in their favor by transportation companies; and thus the general fund of wealth to be distributed to competing industries and labor, as profits and wages, is further reduced.

Credit Affecting Profits.— Aside from the effect of credit in changing the value of the numerical unit of account, which effect will be considered in connection with that of money, the most important effect of credit on distribution as profits is through bankruptcy and business failure. Every business failure involves a loss in one or more of three ways: first, if it be a dishonest failure, and the business is continued without real loss in wealth to the nation, as measured by the total amount of wealth, the debtor merely transferring title to defraud the creditor, then the effect is like that of any despoliatory appropriation of wealth not earned. It is a tax levied upon society for which there is no return, and goes to reduce the equitable profits of business and industry as well as to the reduction of wages. Likewise, when the creditor takes advantage of the debtor, appropriating his business and capital, it is spoliation; and, like the spoliation of theft and robbery, it goes to diminish profits and wages. Second, when a business is discontinued by failure, whether honest or dishonest, there will be in the latter case a despoliatory loss and gain, but there must be in either case an absolute loss to individuals and society in general in the fixed capital, which no longer serves the purpose for which it was designed. The measure of this loss will be the greater as the capital thrown out of use is the more nearly fixed. For example: The failure of a merchant would not entail a great loss upon society generally, as the loss, aside from the individual one, would be confined to the disuse of the goods during the short interval that business is stopped for appointment of a receiver or confirmation of an assignee to wind up his affairs. The goods are mutable capital, and can be utilized as well by society, whether that particular firm be continued or not. But, on the other hand, if a failure cause the discontinuance of the manufacture of a certain kind of goods, requiring machines of special design, the cost of the machines would be a total loss, unless they could be sold to some other manufacturer of the same goods, or remodeled for some other purpose. If the machines be sold to some other manufacturer, the loss to society would be represented in the cost of transportation and setting, the loss of time before they can be again put to use, and in the decreased efficiency in such case, as it is usually true that the purchaser can not use the machine to the same advantage as the machines he has, or machines which might be constructed at the same labor cost as the machines purchased. This loss is so great that the machines of defunct factories are often sold, when they are sold at all, at a small fraction of their original cost. In case the machines are remodeled, we must add to the labor cost in the construction of the machines, the labor cost of remodeling, loss of time by disuse, and transportation and resetting, and from the sum deduct the labor cost of a new machine of the same efficiency. The difference will represent the loss to society in the fixed capital by the failure. Third, all bankruptcies tend to defeat the equalization and equilibration of profits by competition. As a thief can sell at a lower price than a man who purchases his goods, paying a price therefor, so, likewise, can the seller of bankrupt stocks of goods or bankrupt property of any kind. The creditor attempts to get what is due him, and more if he can, and will sacrifice all the owner's interest, or original investment, in the property. What the creditor does not take is given to purchasers in reduced price of the property, to facilitate sale; and this reduced price of property by ruinous competition, destroys profits of others engaged in selling the same kinds of goods or property. From these considerations it must appear that the effect of credit, when resulting in bankruptcy, upon distribution of wealth as profits, is disastrous, producing inequitable distribution.

Again, we may inquire whether credit which does not result in bankruptcy affects profits favorably or unfavorably. It is easy to see that interest paid to

the loaner of capital must come out of profits and wages; and he, performing individually no service to society, receives as interest a portion of the rewards of industry. The governments of all civilized nations have said through their laws that a man may sell the use of his capital at a certain limited rate, instead of employing it in trade and industry himself, and this sum paid as interest goes first to the reduction of profits, and, by equilibration of profits with wages, ultimately to the reduction of wages also. The question then arises, is it better to pay large taxes in interest to support men in idleness, who perform no labor in production, than to compel them to perform some useful service to society by engaging in industry? Is there any compensatory force in the former course to offset the tax imposed to support a class who do not work? It has been urged that men who go into debt put forth much more energy in production than those who employ their own capital only. This is doubtless true, and it may be that the total production under the credit system is greater than could exist under a system of industry from which credit, or debt, is eliminated; in which case there would be more in the general fund for distribution, and there might even be more to distribute as profits. But it would seem, if debt is a necessary stimulus to industry, and, generally, to the production of wealth, the government should assume the place of creditor; in which case the present loaners of capital would be compelled to engage in some useful employment, and the interest paid by debtors would inure to the benefit of the whole people. While we may not state with certainty that credit serves no useful purpose in distribution, — since so many conditions enter the problem as to make the deduction *a priori* well-nigh impossible, and since we have before us in history no example of a system of trade and industry without credit, to enable us to arrive at a result *a posteriori*, — it may be said that credit, as between individuals, is of doubtful efficacy, either in production or distribution, and should be abolished by making the government the sole creditor.

Money Affecting Profits.—Money, as has been shown in Section II of Chapter V, is an instrument in distribution chiefly through the fluctuation in the value of the numerical unit of account, or the legal monetary unit. By the principle of precession of prices, any cause which would produce an advance in prices of commodities would increase the profits of industry, since cost of production would not be immediately affected by such advance. Besides nominal increase of profits on a certain quantity of goods, the total of profits would be increased further by increased production under stimulus of rising prices. On the other hand, any cause which would produce a decline in prices of commodities would reduce profits, since cost of production could not be immediately reduced to compensate reduction in price. And, again, reduced profits of industry would cause diminished production, and thus still further reduce the aggregate of profits and wages through strangulation of industry. But it has been shown that the value of the legal monetary unit depends on the relation of the volume of money to the volume of exchanges to be effected, reducing credits to the equivalent of money in efficiency to effect exchanges. With the relative

increase of the money volume, the value of the legal monetary unit declines, and prices correspondingly rise; with the relative diminution of money volume, the value of the legal monetary unit increases and prices fall. It thus appears that an increasing volume of money, and credit equivalent performing the functions of money, tends to the increase of profits, and vice versa.

While an increase of credit seems to have the same effect on profits as an increase in money volume, and does so far as the effect through the monetary unit is concerned ; yet it is found, when credits are greatly expanded, bankruptcy is increased, and increased risk advances the rate of interest, and these causes, as previously shown in this chapter, tend to the diminution of profits and wages.

The effect of the indirect means upon profits may be summarized as follows : —

1. Monopolized transportation increases transportation profits at the expense of all other profits ; while competitive transportation equilibrates transportation profits with all others.

2. As bankruptcy increases with the expansion of credit, the tendency of credit, through this means, is to the diminution and destruction of profits.

3. An increase in the volume of money increases the distribution of wealth as profits ; while a diminution of the money volume diminishes the distribution of wealth as profits.

CHAPTER XI.

DISTRIBUTION AS RENT: PRIVATE OWNERSHIP IN LAND — VALUE IN LAND — COMPETITION — LEGISLATION — MONOPOLY.

MUCH has been written to show the cause of land values and the right of property in land, in defense of the existing system of land tenure and descent. It is not purposed to enter upon any extended discussion of these subjects in this work, but a statement of the fundamental propositions upon which the discussion must ultimately hang will not be out of place in this chapter.

Private Ownership of Land. — From *a priori* considerations alone there does not seem to be any better reason for private property in land than for private property in air, water, or any other gratuity of nature, except that ownership and control can be maintained in the one case and not in the others. All titles to land may be traced back to a time when the strong drove out the weak and wrested the occupancy of lands from them. Such titles must, therefore, be founded on the Darwinian dictum of the "survival of the fittest." The strong drove out the weaker; they survived; they are therefore the fittest; and being so singled out and favored by nature, they are, therefore, the rightful possessors. If equitable title to lands has not been acquired by lapse of time, — if the present titles are no better than those of the original free-booters

from whom they have been transmitted, — then there are now no equitable titles. The question then arises, What additional rights have been acquired by lapse of time? There can be but one source of such rights; namely, human labor expended in land improvements. Since land appendages or improvements can not be separated from the soil, except it be certain kinds, and then at great loss, this would appear as one of the strongest reasons for private ownership. Besides the last-mentioned, the following *a posteriori* reason may be forcibly urged in favor of private ownership and occupancy: It is in ownership that we find the source of all thrift, enterprise, emulation, ambition, and advancement in civilization. Especially is the proprietorship of a home, a place in which every man feels himself to be a sovereign; where he feels that he is in his own castle, in the occupancy of which no one may disturb him, — especially is such proprietorship conducive to thrift, energy, and the betterment of the condition of the producing classes. Finally, we find land ownership an existing institution, handed down to us by custom and statutory enactments, with precedents extending through many centuries; and, while it is the province of the science of economics to determine the conditions of equitable distribution, it is not less the province of applied economics to work out its problems without destroying existing institutions, unless they are demonstrably inimical to equitable distribution, and with the fewest revolutionary changes possible.

Value in Land.—The value of land is potential, as defined in the introduction, in so far as it is a gratuity of nature held in control by man, and not the result of labor. Land improvements are the product of labor, and their value, when made, is dependent on the same conditions as those fixing the values of commodities. But in time, land improvements, or many of them, at least, become merged, so that it is with difficulty that we can separate that portion of land value which is real from that which is potential. For simplicity of treatment, we will first discuss value in land independently of land improvements.

The principles underlying the determination of value in land are the same as those underlying the determination of the value of commodities. First, we may note the absolute desirability of land; that is, that desirability which is dependent on natural conditions, but independent of those created by society. For agriculture, the sources of absolute desirability, the conditions which make it, are fertility of soil, ease of cultivation, and freedom from obstructions, natural drainage, climate, accessibility, and all other natural conditions which make land well or poorly adapted to agriculture. For mining purposes, other natural conditions determine the absolute desirability of land. For lumbering, fishing, and transportation, still other natural conditions would go to make up the absolute desirability. It is evident that the value of land, other conditions remaining the same, increases with the absolute desirability. Second, value in land varies with the relative desirability; that is, the desirability which is determined by artificial or societary conditions, which may be summed up in the one term, location. Proximity to centers of population, nearness to market, school, church, and social advantages, and all such conditions as are made by society, go to

make relative desirability, or location. Third, value in land increases with the number desiring land, or population. It is obviously true that, when the number of desirable locations is large in comparison to the number to occupy them, the value of land is low, and must rise with the number seeking and occupying locations. Fourth, the number of locations, as compared to the number seeking them, is a factor determining land values, but an inverse factor. If the number of available locations is large in comparison to the number seeking them, land values are low, and vice versa. To state the mathematical formula of value as to land we have: $v \propto \frac{d\,l\,n}{a}$; in which d represents absolute desirability; l, the location, or relative desirability; n, the number seeking locations; and a, the number of available locations — the fourth direct factor disappearing when the formula of value is adapted to the expression of land valuation. To state the principle generally: —

The value of land is directly proportional to the absolute desirability, the relative desirability, and to population, and inversely as to the number of available locations.

The factors d and l of the formula, though defined objectively, are really subjective conditions in their influence on value; it is not so much the real objective conditions, making absolute and relative desirability, as the estimate of those conditions in men's minds. This accounts for what is known as a "boom in real estate." When a desirable location is found, a certain number of men compete with each other for it and neighboring locations, causing a certain range of prices to be asked and paid for them. Others discover the favorable conditions — or what they estimate as such — and the competition of buyers raises the price of land. The more rapidly prices rise, the more are men of a "speculative turn" attracted, with the hope of profit by prospective advance, and the rise of prices is augmented by a further increase of buyers, until prices rise to a point far beyond what a just estimate of the present conditions would warrant purchasers in paying. It is thus in rapidly growing cities and towns that prices of real estate rise more rapidly than the growth in business and population, anticipating that growth many years. And it is only when a town has ceased to grow in population and business that prices of real estate find a normal level determined by an accurate estimate of real conditions. There is seemingly no limit to the price which land values may attain. Land in the present site of Chicago, which in 1830 could not be sold at any price, sold about sixty years later at $187.50 per square foot, or something more than $8,000,000 per acre. It is evident that the value of this land, above that in land improvements, is an unearned increment of value.

It may be here remarked that what is known as the law of "supply and demand" applies in determining land values as it does in determining all others, the direct factors of the formula going to make up the demand, and the inverse factor, the supply.

Competition Affecting Rent. — Rent may be defined as the value paid for the use of land; or, more broadly, the return of land in distribution. It follows as a necessary corollary to the law controlling land values, supposing risk and the average rates of interest and profits to remain the same, that rent rises and falls with land values. Competition is a determining factor of rent as well as of land value. If a certain number of locations of a certain class are in the market for rent, the value of the use, or rent, will depend on the factors which go to make up the demand for these locations.

Besides the competition of location with location, increasing with the number of locations, there is also a competition of land, as tellurian capital, with other forms of capital. Wealth devoted to gain has been, in the Introduction, classified as actual capital, tellurian capital, potential capital, and credential capital. If, for any cause, the profits of other forms greatly exceed those of tellurian capital, men will become more and more sellers of land and seek investment in more profitable forms of capital. The latter will accordingly rise in value while land will fall; and with the fall in land valuation will go usance of land, or rent. This statement holds as to the total return from a given piece of real estate, or land, and not necessarily as a percentage on land valuation. While land valuation and rent rise and fall together, with few exceptions, their movement is not generally parallel so as to maintain rent always the same in percentage on land valuation. It is easy to see that certain causes, like anticipation of future value, have great effects upon land valuation, but little or no effect on rent, which is the value of the present use. Again, present usance may be temporarily high, but if the probable future rental be not high, the valuation of the land will not rise in like degree.

Another form of competition which affects rent is competition of labor. In times of great influx of population, or when for any cause men are thrown out of other employment, they seek agricultural lands, and the competition of buyers of small holdings, and others seeking lands to lease, causes land values and rents to rise, other factors remaining unchanged. Such a cause long and extensively continued would ultimately produce a decline in rent as compared to land values; for a great increase in the number of farmers would result in a larger supply of agricultural products, as compared to consumption, and thus lower prices, resulting in smaller profits of agriculture and a decline in rent. The decline in rent would carry land values down with it, though the decline in land values from this cause would not be so rapid as the decline of rent. This is a paradoxical result; a cause tending seemingly to a rise in rent and land values, resulting ultimately in their decline. It is to be remarked that such a result could not be reached in a country where all farm lands are under tillage, but only in new countries, where there are vacant or untilled lands. In countries where all lands are occupied, competition of laborers and influx of population must result in the rise of rent and land values, the former more rapidly than the latter, if the number seeking farm lands is increased at the expense of the numbers engaged in other industries. But if the increase of laborers goes principally into other industries than farming, then land values rise faster than rent.

Legislation Affecting Rent.— There could be no land value or rent except by legislation, including the common law, which creates property in land. Legislation, also, which protects property rights established by law and usage, produces much higher land values and rents, than are found, other things being equal, in countries where property rights are not well protected. Thus, in a country subject to incursions of predatory hordes of brigands, land values and rents must be low in proportion to the frequeney of incursions, or the risk of crops being taken and lands devastated. But again — and this is the manner which most concerns us in this country — land values and rent are affected by legislation which places a lighter or heavier burden of taxation upon them, a heavy burden tending to lower rents and land values, and vice versa. This is readily seen when we consider that a tax on land reduces the profits on land directly, and lowered profits on land, that is, lowered rent, must reduce land values by the principle of competition of the various forms of capital.

Monopoly Affecting Rent.— In the competition of industries, commodity with commodity, a property which more than any other is a hindrance to monopolization, is mobility, or movableness. If goods are high in one locality, they may be brought from the locality of greater plentifulness and cheapness; and thus, in a measure, the great rise in price in the locality of scarceness will be checked. Monopoly, to be completely maintained, must be by control of the means of transportation. But in land we have fixity of location instead of mobility, and this property renders monopoly of land so much the more easily maintained. Lands where the prices of reality are low can not be removed to places where it is high, and so by competition equilibrate the prices of land in accordance with productiveness or some other intrinsic properties. Each center of population, industry, and trade has its sphere of influence, which, like the attraction of a magnet, extending throughout its field, but diminishing in power as we recede from the center, or pole of attraction, causes values in land, other conditions being equal, to rise as we approach the center, and fall as we recede from it. This sphere of influence is only limited by that of some other center. As there is a point between the earth and the moon where the attractions of the two planets are in equilibrium ; so between two cities there is a point at which the influence of each on land valuation is equal to that of the other. The analogy of attraction is not quite complete, since the power of a center of trade on land values is more of an effluence, or outflowing from the center, filling up land values to the greatest extent at the center and less and less as the effluence is extended outward from the center. This power of the center of trade over value in land, in proportion to proximity, affects rent in equal degree, except where population is increasing or decreasing, in which cases land values rise or fall more rapidly than rent, anticipation causing the more rapid movement of land values. Where there are still large tracts of unoccupied lands or lands of low valuation, monopoly can not become complete in its control of rent, for men can migrate to the free lands, when wages are in danger of being absorbed into rent, if the lands can not be brought to them. But as the distance to free lands and the difficulty of reaching them increases, the monopoly in land becomes the more and more

nearly complete in its control of rent. In old and thickly settled countries, like those of western Europe, the land owner has the power to raise rent to the full value of the product of land, less transportation to market and a bare subsistence for the worker as wages. In manufacturing industries this control of rent is less complete, since there are always many unoccupied sites for manufacture, which limit rent by competition ; but in mining and agriculture, in countries where all such lands are occupied, there is no power of competition, except to equilibrate rent — or prevent a wide divergence of rent — of the cheaper and dearer lands. As an illustration of the effect of monopolization of land, it may be remarked that Ireland, owing to the gradual absorption of wages and profits into rent during the last fifty-seven years, has lost about fifty per cent. of her population by starvation and emigration. The landlord gives to the tenant so hard a bargain as to rental which must be paid each year, that in seasons of poor crops many starve, and rarely by thrift and industry can the Irish farmer lift himself above the plane of abject poverty.

The effect of the direct means of distribution on rent may be thus summarized:—

1. Competition, in whatever form affecting rent, tends to the equalization of rent with rent, and the equilibration of rent with wages and profits in countries having unoccupied lands.

2. Legislation is one of the most powerful means affecting rent, but may be directed toward the equitable or inequitable distribution of wealth as rent.

3. Monopoly of land tends always to the increase of rent at the expense of wages and profits.

The increase in value of land due to private ownership, above the value of the land improvements measured by labor cost, is an unearned increment of land value; so, also, the rent-commanding power, above equitable profit on capital invested in land improvements, is an unearned and inequitable increment, in distribution as rent.

CHAPTER XII.

DISTRIBUTION AS RENT: INDIRECT MEANS — TRANSPORTATION — CREDIT AND MONEY — UNEARNED INCREMENT IN LAND.

Transportation Affecting Rent. — Transportation, when competitive or low in cost, is a great leveler of land values and rent. A residence in a suburb of a great city would command but a low rental comparatively, if there were no cheap and rapid means of transit to and from the business center. The business man can afford to pay a higher rental for a residence location near his place of business, because of the saving in time and expense in going to and fro each day. Again, he can afford to pay a higher rental near the center of population, or one most easily accessible by people with whom he does business, than for a location farther away, since he can in the former do the largest volume of business. Likewise, agricultural lands near to the best market for agricultural produce bear a higher value and command a higher rental than land far distant. But, as the rapidity and cheapness of transportation increases, the differences in value and rental between near and distant locations diminishes. Yet, since there are other determining conditions of land values and rent, rents could not be equalized, if cost and time of transportation were eliminated. While low-cost and rapid transportation tends to the equalization of rents, it is evident that slow, high-cost, and monoplized transportation exaggerates the differences in rent between near and distant locations, as referred to the principal market or business center.

Besides affecting rents as compared to each other, transportation affects rents in totalities when divided into two classes — transportation rentals and non-transportation rentals. When, for any cause, transportation rates are increased, transportation rentals — the usance of reality in transportation lines — are also high. But if a larger and increasing portion of the general product is distributed as transportation rentals, the portion which can be distributed in other modes, including the non-transportation rentals — rentals of reality not controlled by transportation lines — must be diminished. Conversely, declining rates of transportation leave an increasing portion of the general product to be distributed in other modes than as transportation profits and rents. Finally, when monopoly of transportation conspires with monopoly of industry, such monopolies take an increasing portion of the general product, causing diminished distribution in all other modes, including rents of reality not controlled by monopolies so conspiring.

Credit Affecting Rent.— Besides its effect through the legal monetary unit, credit affects rents through bankruptcy. All kinds of industry, whether of transportation, manufacture, agriculture, or merchandising, require business locations; increasing bankruptcy throws an increasing number of locations on the market for rent or for sale, and this increase of supply as proportioned to the demand must tend generally to reduce rent. Again, bankruptcy diminishes production and the total of valuable commodities to be distributed. Rent must therefore diminish with increasing bankruptcy for this reason.

Money Affecting Rent.— The effect of money on rent, like its effect on wages and profits, is an indirect one due to the fluctuation in value of the numerical unit of account, as indicated by a rise or fall of general prices. Accepting as an established truth of economics, that an increase in money volume as proportioned to business transactions causes a rise in general prices, and that a diminution of the money volume causes a decline, the effect of a change in money volume upon distribution as rent, other causes or conditions remaining unchanged, is easily determined. By the law of precession, or lagging of prices, before referred to, when prices advance, real estate values and rents rise more slowly than profits, but more rapidly than wages. Were we to assume the same utility production under advancing prices as exists under stationary prices, then farming, manufacturing, and merchandising would reap the largest gain, and an increased distribution as profits would result. Next, land values and rents would follow, taking as rent in distribution a smaller increment than is distributed as profits, but a larger than is distributed as wages. In this case, land values and rent rise nominally, — measured by the legal monetary unit, — but really fall, measured by a fixed standard, based on an average of commodity values. And so, likewise, would real wages fall, were commodity or utility production to remain stationary. But it has been shown *a priori*, and all experience proves, that rising prices are followed by greatly increased utility production, because of the stimulus given by increased profits resulting from rising prices. The greatly increased product to be distributed increases real profits, rents, and wages in the order named, more of the increment of production being distributed as profits than as rent, and more as rent than as wages. It thus appears that the recipients of profits, rents, and wages are all benefited by rising prices, though not equally.

Again, were we to assume stationary production accompanying a period of falling prices, the wage earner would reap the greatest reward, since commodity prices fall faster than rents, and rents faster than wages; for real wages and rents, measured by the fixed measure, the average of commodity prices, would rise. But it is true theoretically, and confirmed by experience, that utility-production is greatly diminished by falling prices; since, by the same law of lagging prices, profits are first diminished, before the effect can reach rent and wages. The total product of industry which can enter the channels of distribution being less, only a smaller flow of valuable commodities can reach the elements of society as profits, rent, and wages; the decrement, or loss, both nominal and real, falling more heavily upon rent than upon wages, but less heavily than upon profits. The recipients of profits, rents, and wages are thus all injured by any cause which produces a general decline of prices, though unequally.

In this discussion as to the effect of money upon rent, money volume has been taken in its comprehensive sense, including all factors of credit, with money as legally defined, all reduced to a common unit of efficiency in exchange.

Were it necessary to choose between rising and falling prices, the former would be far more favorable to the increased flow of fruendal to all elements of society, in all modes, equitable and inequitable, through stimulus given to production; and it would appear that the former is preferable under all conditions. But rising prices, while increasing the flow of values through all modes by increased production, distributes wealth unequally and inequitably. Again, a rapid rise in prices, by inequitable distribution, as will later appear, aggravates other forms of inequitable and despoliatory distribution; and its cumulative effect is to counteract the benefits which would otherwise accrue to the producing classes by reason of the increased product to be distributed. Finally, a rapid increase in prices gives to all classes greater apparent wealth, though real only in so far as each class receives a larger share of valuable commodities for its service to society. This greater apparent wealth stimulates extravagance and wasteful consumption, and thus a larger and increasing percentage of the labor expended in production is lost or fails to produce its best result. From theory, it would appear that stationary prices are most favorable to equitable distribution, since money in this case is limited to its proper function of measuring values and effecting exchanges. Yet many believe, and experience seems to confirm the belief, that gradually and continuously rising prices are a corrective measure, which to a degree compensates the debtor for the advantage held, by reason of greater wealth, by the creditor over him. If increasing money volume, reaching its result through rising prices, be adopted as a corrective measure, it must be on the ground that the inequalities which it seeks to compensate can not be otherwise more easily corrected or directly eliminated.

The effect of the indirect means of distribution upon rent may be summarized as follows: —

1. The monopolization of transportation and its combination with other monopolies increase the rentals of all lands controlled by such monopolies, but diminishes rents of all other lands. On the other hand, competitive transportation tends to equilibrate transportation rents with all others, and rent with wages and profits.

2. Credit is the necessary condition of bankruptcy, and through bankruptcy tends to diminish all profits, including those of land, or rent.

3. An increase in money volume increases general prices, and through prices, profits, rent, and wages; but the cumulative effect of inequitable distribution, resulting from the law of lagging prices, may counteract such advantage to rent and wages, especially when the rise in prices is too rapid or too violent.

A decline in general prices causes a diminution of wealth distributed as profits, rent, and wages, affecting rent less than profits, but more than wages.

The condition favoring equitable distribution is that of stationary or gradually advancing general prices.

In closing this chapter and the subject of rent, it may be remarked that a large portion of the real wealth, the *ops de facto*, in all civilized countries is diverted from equitable channels of distribution by the command over it of the land potential — that value given land by virtue of its natural qualities and

location, its location with reference to centers of population, and the monopoly granted by law in private ownership. Henry George, in his "Progress and Poverty," has clearly and incontrovertibly shown the nature of the unearned increment in land value, though his remedy is not so clearly evident as to its beneficent results. This value is not a real value, like the class denominated *ops de facto*, but is a mere command over such value — a *potential value.* It is doubtful whether agricultural lands have in this country reached a valuation greatly above land improvements; but in cities the value of land above improvements is often fabulous, and this command of value is unearned and inequitable. Likewise the use of land, rent, in so far as it is above, or in excess of, an equitable profit on land improvements, is an unearned increment and inequitable. The unearned increment of land has been several times referred to; but it is of so great importance that its nature can not be too forcibly impressed upon the student's mind. Remedies for the evil will be discussed in Book V, on "Applied Economics."

CHAPTER XIII.

DISTRIBUTION AS ROYALTY—OPERATION OF THE MEANS, DIRECT AND INDIRECT.

ROYALTY has been defined in Chapter I as the return in wealth of the patent potential. It is not the purpose of this chapter to show where equitable distribution as royalty ceases and inequitable distribution begins. Indeed, it would be difficult to say where the one ceases and the other does begin, since the allotment of rewards for the patent potential is so much of a lottery. Many inventors, discoverers, authors, and artists devote their lives to labor which brings them but a precarious subsistence: the few, by luck, genius, or indefatigable labor, achieve great things; the prizes drawn by the few lure on the many. But it is an obvious fact that the patent is the means by which many individuals and corporations levy a burdensome tax upon society for their individual or corporate benefit, enjoying an unearned increment of value most grossly inequitable. The effect of the various means, influencing or controlling distribution as royalty, need be but briefly discussed in this chapter.

Competition Affecting Royalty.—Affecting land values and rent, competition is a force much less powerful to level prices than when affecting wages and profits; and it is even less powerful to level patential values and royalties.

It is easy to see that there must be, in any considerable territory of land, several locations which in a measure compete with each other, tending to level prices. With inventions and discoveries, however, there is but one device, or but few devices at most, to accomplish a certain desired result; consequently competition can be easily destroyed by uniting the few under the one control. So the writer of a work which proves very popular enjoys a monopoly, and can secure a great return for his labor, though hundreds and thousands of others attempt to attract the public attention. Nevertheless, competition does have some influence in leveling prices of inventions and copyrights and their return in royalties. The great success of one stimulates greater energies on the part of others to produce something as good or better. Though the inventors, discoverers, designers, writers, musical composers, and artists be many, and successful productions be few, there is every gradation of success from the highest to the lowest, and those approximating the highest success must by competition limit the demand for, and price of, the highest.

Legislation Affecting Royalties.— Without a law creating property in ideas, they could have no commercial value. An idea is an immaterial thing, and once set in motion can not be controlled, unless by legislation a monopoly is created in it for the benefit of its originator. Going back to the time when all men were in the habit of going to mill with the grist in one end of the sack and "a stone in the other end to balance it" across the donkey's back, it was a distinct gain or saving to society made by the man of ideas, when he proposed to divide the grist, putting a portion in each end "to balance," and save the labor of "toting" the stone. But that was doubtless before the time of patents, and the inventor and his fellows shared equally in the benefits conferred on the race by his invention. Men will not pay for that which they can have without price. Without patent laws men could not exclusively reap the benefit of the ideas which they originate, except by secrecy. It may be said, then, that legislation gives to royalty all its value, law being the indispensable condition; yet the values of patents and royalties are modified, increased or diminished, by other causes. The time of control has great influence in determining the value of a patent, since a long time is more favorable to the creation of a great property in it than a short time. The royalty, or continuous return, is also affected, but not in the same degree. Again, the territory over which the monopoly is granted, population, and other elements which enter its desirability go to determine its value and its command over other forms of wealth as royalty.

Indirect Means Affecting Royalty. — The action of the indirect means upon the values of patents and royalty is somewhat more remote and indirect than their action on wages, profits, and rents. Competition in transportation has the effect of stimulating invention in this direction, since competition requires cheapening of transportation to increase profits. Monopoly of transportation, on the other hand, offers little or no reward for invention in this direction, since monopoly seeks to increase profits by increasing prices more than by reduction of cost. Again, competition in transportation favors competition in industry, which, in turn, stimulates invention in the direction of productive industry. For similar reasons monopoly of transportation assists in the monopoly of industry, which gives much less incentive to invention. It is true that many partial monopolies employ men whose sole business it is to devise new inventions for them, but it is largely competition with other like industries which compels this course. There are other indirect ways in which transportation affects invention and royalties; but from these we may conclude that low and competing transportation is a condition favoring invention and the increase of royalties therefrom.

Credit, in so far as it increases bankruptcy, discourages invention by making men fearful to invest capital in any enterprise whose success is not assured by experience; and as bankruptcy strangles industry, profits of invention, royalty, are curtailed with other profits.

It has been before pointed out that a diminution of the money volume (including all money equivalents), resulting in a decline in prices, discourages industry by reducing profits. Languishing industry, in turn, must discourage invention and diminish royalty, by causing what is termed a "loss of confidence;" which means that owners of capital refuse to invest in new enterprises, and withdraw from many already in operation, thus diminishing profits and royalty. It may be observed that the term invention is used in this connection to cover every form of mental product protected by patent laws.

In conclusion, it may be remarked that there are other indirect means affecting distribution as royalty, not enumerated in the classification, which are no inconsiderable factors. The more important of these is consumption. Consumption increases as we approach an equal distribution of wealth, and increased consumption, by increased demand, raises prices and profits. This effect, like a rise of prices and profits from any other cause, offers increased rewards to invention as royalty.

1. Competition and other causes which tend to the equilibration of equitable distribution in the various modes, tends to equitable distribution as royalty and to the destruction of unearned increments. All causes which tend to diminish production, trade, and industry, diminish equitable distribution as royalty.

2. Monopoly and other causes through which inequitable distribution is effected in other modes, produce inequitable distribution also as royalty, discouraging invention, excepting as to those interested in the monopolized industries.

CHAPTER XIV.

DISTRIBUTION AS INTEREST — OPERATION OF MEANS, DIRECT AND INDIRECT — SOCIALISTIC CONTENTION AS TO INTEREST.

THE analysis of interest, given in Chapter XIV of Book II, anticipates to some extent the discussion of causes which would be logically considered in this connection. It is there shown how profits, risk, cost of business maintenance, and fluctuation in the purchasing-power of the numerical unit of account affect interest. It is shown how interest increases and decreases with the increase or decrease of the causes enumerated, except the last; and how interest increases in rate or decreases, as the value of the numerical unit of account decreases or increases. But some of the means of distribution require special mention here as to their operation on interest.

Competition Affecting Interest.— Competition affects interest both directly and indirectly. First, if there be a large amount of mutable capital unemployed, as in times of business stagnation, due to any cause, the competition of capital with capital causes a decline in the rate of interest, since the supply of capital is large in proportion to the demand for it. Likewise, in times of brisk or booming business, due to any cause, the demand for mutable capital is large in proportion to the supply, and rates of interest rise. Secondly, since the tendency of full and free competition is to equilibrate rent and profits with each other, and both with wages, and since interest is paid directly out of rent and profits, absorbing wealth, or withdrawing it, from these modes before wages and the principal invested are drawn upon, it must follow that the leveling down of rent and profits by competition in land and industries likewise forces interest down; reduced rent and profits lessening demand for capital for investment, and lessened demand operating to lessen the rate of interest. It will therefore appear that competition of any kind, except a competition of borrowers, which measures the demand for loans, operates directly and indirectly to lower the rate of interest, and equilibrate interest with rent, profits, and wages.

Legislation Affecting Interest.— Legislators have often attempted to limit by law the rate of interest, fixing penalties for taking interest above the rate fixed by statute. Such legislation has proved to be of doubtful efficiency, since, if the borrower is willing to pay a higher rate, ways are always found for evading the law. It can have little or no effect generally upon the rate of interest. The benefits derived from usury laws are in the protection given debtors, who are often placed at the mercy of an extortionate creditor. The indirect effects of legislation on distribution as interest are many; but, in general, all legislation which promotes equitable distribution, destroying unearned increments and diminishing debt, tends to the reduction of interest to a minimum rate. This it does by cutting off demands for speculation, and eliminating risk and the inequitable element of interest through the mediation of other causes.

Monopoly Affecting Interest.— As before shown, the primary effect of monopoly is to increase unearned increments and distribution in inequitable and despoliatory modes. Accordingly, a monopoly of money greatly increases interest paid by those who must borrow. This is exemplified in the high rates of money "on call" in times of "financial stringency," this rate occasionally rising to seventy or eighty per cent. But the indirect effect of monopoly of industry and land, money being only partially monopolized, is finally to reduce the rate of interest. This it does through the accumulation of wealth in the hands of the few. It reduces consumption and production, thus causing money to accumulate in money centers in an increasing fund which finds no borrowers for investment in productive industry.

Transportation Affecting Interest.— As low transportation tends to the equilibration and equalization of the rewards of labor, capital, and land, and through this effect, to the increase of production to a maximum, it must tend to raise the rate of interest by giving greater and greater employment to capital. The monopolization of transportation conspires with monopoly of industry and land to intensify the effects pointed out in the preceding paragraph.

Credit Affecting Interest.— Of the indirect means none have so great influence in determining the rate of interest as credit. And its influence is so nearly direct that, as affecting interest, it would be better classified as a direct means. It is easy to see that all causes which operate to lead men into debt, whether in speculation or legitimate industry, make a greater demand for loans, and thus increase the rate of interest directly. Interest increases and decreases, other conditions remaining unchanged, with the volume of credit. But credit can not continuously increase without ultimately increasing bankruptcy, tending thus to increase the rate of interest by increasing the element of risk. Again, increasing, bankruptcy must finally so "impair confidence" that credit is withdrawn; and, with the diminution of credit, the rate of interest falls by the diminution in the demand for loans. This latter is a cumulative, secondary, and reflexive effect, and outweighs the direct effect of credit to increase the rate, whenever bankruptcy has so far increased as to cause a diminution in the volume of credit.

Money Affecting Interest.— In the analysis of interest before referred to, the more important effect upon the rate of interest, produced by a change in the purchasing power of money, has been discussed; but there are many other indirect effects produced by the same cause through different links in the chain of causation. For example, an increase in the purchasing power of money tends through consumption to the reduction of the rate of interest, as follows: The increase of the purchasing power of money causes a general decline of prices; a general decline of prices affects the debtor, laboring, and industrial classes disastrously, diminishing their ability to buy and curtailing consumption generally; reduced consumption further diminishes industry and the demand for money; and diminished demand for money reduces the rate of interest. In a similar way we may show that the effect of a diminished purchasing power of money

through consumption is to increase the rate of interest. Again, it may be shown that an increased purchasing power of money increases poverty, ill-health, and crime; these increase taxation and diminish production; increased taxation and diminished production diminish the total amount of wealth to be distributed through the various modes, and thus diminish interest. Diminished purchasing power of money, through this chain of causation, increases the rate of interest. These indirect effects of a change in the purchasing power of money, it will be observed, conspire to intensify the more direct effects previously pointed out. Though some indirect effects may be traced which are opposed to these, they can not negative the general proposition that *increased purchasing power of money, other causes remaining the the same, diminishes the rate of interest, and vice versa.*

Socialistic Contention as to Interest. — Socialists generally condemn interest as wholly inequitable. They contend that land with all forces and gratuities of nature belong of right to all men alike — to the state. And since the state should own and control all the forces and instrumentalities of production, it should own and control all capital — wealth in any form used for the production of more wealth. If these contentions be granted and carried into effect, then interest would be payable to the state, and debt as between individuals would be abolished.

Not to enter here into a discussion of the equity of interest, it will be sufficient to say that it is generally recognized as equitable. It is founded on the individual right of contract; yet that debt and its concomitant, interest, are great evils, few will deny.

Interest accumulates in a geometrical ratio, and the rapidity with which it accumulates is appreciated by but few. Suppose some whimsical sire in the time of William the Conquerer, about 833 years ago, had left a will, in which he set aside the equivalent of one dollar of our present U. S. money, charging his descendants to keep the sum at interest at 5 per cent. in perpetuity, adding interest to principal and compounding annually. If we further suppose that his descendants had been able to carry out the provisions of that will to the present time, that dollar would have amounted, in this year of grace 1899, to the fabulous sum of $454,500,000,000,000,000, a sum more than seven million times the estimated wealth of the United States and nearly one million times that of the whole world.

When we consider the vast debts of the world, amounting to hundreds of billions of dollars, including private, corporate, and national indebtedness, we will see that the only possible compensating force, preventing the swallowing up of all wealth by debt, and concentrating the wealth into the hands of a few creditors, is the continual loss of principal by bankruptcy. The great danger in debt and interest lies in the speculative nature of most men, who see opportunities of gain in various enterprises, but who do not see, or carefully weigh, the chances of loss. As a consequence of man's overestimate of his powers of accumulation, he agrees on the average to pay in interest to the loaner of capital more than can be realized as profit. Thus interest swallows up profits and makes a large draft on wages besides. While this statement is not true, generally, of profits of monopolized industry, it is true of most others, except in times of rising prices.

Those causes which promote equitable distribution in other modes, tend also to distribute wealth equitably as interest; while on the other hand, those causes which promote inequitable and despoliatory distribution in other modes, tend also to the increase of inequitable distribution as interest.

When inequitable distribution as interest has reached a maximum under the cumulative effect of conspiring means, the inevitable remedy is bankruptcy, the recurring periods of which are termed financial panics.

CHAPTER XV.

DISTRIBUTION AS SPOILS.

DISTRIBUTION of wealth as spoils has been referred to incidentally in previous chapters; and the various means and their operation are too familiar to require a detailed discussion of them in this connection. In no distribution as spoils is there any element of equity; but all wealth so distributed is an unearned increment of decrement of wealth, and is, therefore, inequitable.

Spoliation by Increment of Debt.—Under this sub-head, in Chapter I of this Book, the manner of distribution in this mode is shown. Despoliatory distribution can exist in this mode only by an increase of debt in proportion to property against which it is held, or vice versa. But a debt can increase in proportion to property against which it is held, leaving the accumulation of interest out of account, only by a rise or fall in general prices; and, as has been shown, a rise or fall in general prices can only occur by a change in the buying power of the legal monetary unit, or the numerical unit of account. And, finally, a change in the purchasing power of the legal monetary unit can result only from a change in the ratio of money and credit equivalent, in volume, compared to the volume of business to be transacted.

From these considerations it will appear that distribution as increment of debt would be eliminated, if we had a perfect or invariable standard of value; or, in

other words, if we could always so proportion the volume of money and credit equivalent that it shall bear a constant relation to the volume of business. It also follows that all causes, artificial or natural, which disturb the ratio of money volume to business volume, are causes or means promoting despoliatory distribution in this mode; and, on the other hand, all causes which tend to preserve the ratio constant are means of destroying or eliminating despoliatory distribution.

Of all the modes of inequitable and despoliatory distribution, that through increment of debt is greatest. Indeed, the magnitude of such despoliatory distribution can scarcely be estimated. In the United States, since the Civil War, debtors have been despoiled through this mode, taking no account of losses by bankruptcy, to the extent of about $20,000,000,000, estimating the average indebtedness during the thirty-three-year period to be $30,000,000,000, and the fall in general prices at 66⅔ per cent. From 1860 to 1865 creditors were correspondingly despoiled, though the aggregate of loss of creditors during that period was very small in comparison; since the total amount of indebtedness during the war period was relatively small, compared to that accumulated since, and, also, that the portion of indebtedness liquidated under high prices of 1865 and 1866 was still smaller. By bankruptcy the debtor loses in the extremely low price at which his property is sold "under the hammer." The creditor also usually loses by the failure of the property sold "under the hammer" to bring a price equal to the value of the debt when contracted. And if we add to the twenty billions above mentioned, the losses of debtor and creditor, both of which must be charged to despoliatory distribution by increment of debt, that sum must be greatly augmented, perhaps doubled.

Spoliation by Increment of Speculative Value. — While distribution by increment of debt depends on a change in general prices, distribution by increment of speculative value depends on fluctuations in price of commodities or properties individually. If a speculator buy a piece of property, or an option on any commodity or stock, he will use every means within his power to raise the price or market value of the purchase before he sells, that he may profit by the "margin." Or, on the other hand, if he agree to sell at a future time at a stipulated price, depending on purchase, meantime, to fill his contract, he will use every means within his power to depress the price, that he may profit by the "margin" between his stipulated selling price and the price at which he must purchase. All means employed, whether direct or indirect, to bring about a change in price, are means of distribution in this mode. All fluctuations in price thus produced, whether by natural means beyond man's control or by artificial means, are unearned increments of value and wholly despoliatory, since the speculator performs no valuable service to society. We must carefully distinguish speculative gain or loss from the profit of a merchant or broker, who is entitled to a reward or wage for a real service in exchange and distribution of utilities. The magnitude of distribution through increment of speculative value is considerable. Many men have no means of subsistence except the filching from society by speculation, and a large percentage of this class amass great wealth, for which they have given society no return.

Spoliation by War, Gambling, and Crime.— The means employed in spoliation by war, are all means collectively at a nation's disposal. Of the proximate means, competition, legislation, deception, monopoly, stealth, and violence all have a part to perform in war. Likewise, of the remote means, transportation, credit, and money are most important factors. It is not within the scope of this work to discuss the means of carrying on war in detail, since the subject would require a treatise in itself; but we here give it a passing notice to show how the means of war are means of distributing wealth. Directly, the means of war distribute wealth by confiscation; and the wealth so appropriated reaches the elements of the victorious nation by a sort of filtration process from royalty down. First, it is paid out of the national treasury as gifts, or salaries to officials; they, by lavish expenditures, pay it out for equipage and display, necessities, and extravagances, until, through the various other modes and by various means before discussed, it reaches, in some degree, the lowest stratum of society. As an example of such distribution, Spain in the sixteenth century may be cited. She was enriched by the pillage of Mexico, Peru, and other American countries; and largely through such ill-gotten wealth she became the most powerful nation of that century. But when she could no longer plunder, she was no longer great, and her riches took wings and flew to more thrifty, honest, and industrious peoples. The same grasping greed has characterized, to a greater or less extent, the nations of modern Europe since that time; and though nations boast that they have passed the stage of piracy and brigandage in their civilization, yet, in their treatment of weaker powers, they still manifest the spirit of the ancient and medieval robber, — might only is right between nations.

The same means used by nations in their warfare with each other, taking by force that to which they have no rightful claim, are used by criminals in their acts of deception, stealth, treachery, and violence in despoiling other individuals or the state. Yet the state attempts to punish as crimes the appropriation of wealth by swindling, stealth, robbery, and other modes placed under the ban of the law. The amount of wealth so taken and distributed is no inconsiderable portion, and it represents a loss, equivalent to the destruction of so much wealth, by the individuals who have been so despoiled. The beneficiaries of crime "live by the sweat" of other people's "brows."

CHAPTER XVI.

THE LAWS OF THE DISTRIBUTION OF WEALTH.

In the preceding chapters of this book the modes and means of distribution have been discussed; and, under the "application of means" to distribution in the various modes, the conditions of distribution favorable to the highest material prosperity have been formulated. Little remains for this chapter but the statement and discussion of conditions in the most general way. The following principles embody generally the conditions of distribution essential to the highest material prosperity of a people :

1. All despoliatory modes of distribution, and all means or causes distributing wealth in despoliatory modes only, should be made to disappear or to approach as nearly as possible to a vanishing minimum, to promote the highest material prosperity.

2. Again, the highest material prosperity requires that all unearned increments of value, in whatever modes they may occur, and by whatever causes, should be destroyed; and, also, that the causes effecting distribution as unearned increments should be destroyed or so directed as to distribute wealth equitably only.

While these propositions need no argumentative defense, there are still conditions deserving notice necessary to the desired elimination of despoliatory distribution, and all distribution as unearned increments. These conditions will be discussed, as nearly as may be, in order of their importance.

1. *High Moral Development.*—It is evident that a high moral development of the human mind is not only favorable to equitable distribution of wealth and the elimination of inequitable and despoliatory distribution, but that it is a condition without which equitable distribution is impossible. The command, "Do unto others as ye would that they should do unto you," is the gospel of altruism, and must eventually supersede and destroy the gospel of greed, now so predominant in the human mind. Selfishness has doubtless had a great work to perform in the animal kingdom, in the development of higher from lower forms, and it is not therefore to be entirely condemned; but, like all lower forms of mentality, it must yield to the predominance of the higher and nobler forms, such as find expression in the God-like maxim, "Love thy neighbor as thyself." As no fountain can rise higher than its source, so there can be no justice among men, except as there is a desire to do justice and see justice done. Where "might is right," and the desire for acquisition, regardless of the rights of others, predominates, there can be no equitable distribution; and the "science of political economy" which ignores the benevolent faculties and gives voice only to the selfish propensities of the human mind, is a "dismal science" indeed. If men have no fraternal feelings, but prey upon each other like ferocious beasts of the animal kingdom, then, indeed, must we despair, and "leave all hope behind," as we enter the gruesome charnel house of the Malthusian philosophy. No such horrible fate, however, awaits mankind as was pictured by the disciples of Malthus; but humanity is growing higher, nobler, and ever more jealous of justice and the rights of men; and we can imagine no such relapse now as overtook the civilized world with the fall of the Roman Empire; though, if men are not now wise enough to do justly, the surgeon's knife of destruction will be applied by Dame Nature again, as frequently in the past. *High moral development is a sine qua non of equitable distribution of wealth and the highest material prosperity.*

2. *High Intellectual Development.*— It matters not how honest a people may be, how benevolent and justice-loving, if they be ignorant, they fall an easy prey to designing, selfish, and predatory conspirators against the common weal. The morality which desires the highest justice and material prosperity must be supplemented by a *high intellectual development*, which can discern injustice and devise its remedy. The great unrest of the producing classes in these last years of the nineteenth century is a hopeful sign; it shows that they have awakened and at last discern the great evils and injustice in our social and industrial institutions. The love of justice and the desire for its enforcement, like necessity, is the mother of invention; and we may be assured that where the people have a will they will find a way, and the remedy for these evils will be forthcoming. But how long and how much they will suffer, and halt between opposing opinions, before they hit upon the true remedies, is a problem which no man can now solve. While we may not hope for the immediate dawn of the millennium, we may greatly hasten its

approach by the promotion of the widest diffusion of intelligence; and by "intelligence" here is meant a comprehensive knowledge of the conditions of welfare of individual, family, state, and nation. *The highest intellectual development of a people is a sine qua non of equitable distribution of wealth and the highest material prosperity.*

3. *Civil Liberty, Sovereignty of the People.*— A third condition which follows as a sequence of the two preceding, but which is as necessary to the equitable distribution of wealth and the highest material prosperity, is the condition of *civil liberty, the sovereignty of the people.* Though a people have right morals and high intelligence, if they be placed under the restraints of a despotic government, they are powerless to secure equity, except by revolution and the destruction of the despotic power. By civil liberty is meant the freedom of the individual to do that which will not interfere with the equal right of his fellow. The sovereignty of the people is its necessary complement; neither can exist without the other. A nominal liberty and popular sovereignty of the people may exist with a low state of morals and intelligence; but it is liberty and popular sovereignity only in name. A people under such conditions will be ruled by the demagogue and corruptionist, and will be under the worst of all despotisms.

4. *Wise Legislation and Law Enforcement.*— Having given the three conditions above mentioned, we have, growing out of them, a *wise legislation and enforcement of law* as the next condition essential to equitable distribution of wealth and the highest material prosperity. To legislation and the enforcement of law we must look for the elimination of crime and its attendant despoliatory distribution of wealth. To legislation and its enforcement we must look for the destruction of unearned increments in land, by the destruction of all potential value in land; of debt, by the establishment of a perfect measure and standard of value; in commodity speculation, by making it unlawful, or, better still, impossible, for board of trade gamblers to raise and depress the markets; of interest, by destroying all debt as between individuals, and making the government the sole creditor, or by some better means; of profits, by the government's assuming and operating the great industries of wide and national importance, destroying monopolies, or by some means better adapted to the purpose; in royalties, by the government reserving the right to revoke patents when they have become the cause of oppressive monopolies.

The above are stated merely as suggestive of the line along which reforms must work through legislation, and not in each case as the best remedy for the evils of inequitable distribution. They are problems which will require the greatest statesmanship; and no one can say dogmatically of an untried means for remedying an evil that it is the best that can be devised. The crucial test of experience only can demonstrate the relative merits of means.

As means of making the people truly sovereign, there should be engrafted on our state and national constitutions the Swiss principles known as *The Initiative, The Referendum, and Proportional Representation.* To these subjects the student is referred as collateral reading in civil government.

OUTLINE OF CHAPTER XVI — LAWS OF DISTRIBUTION.

- LAWS OF DISTRIBUTION
  - General
    - 1. Destruction of Despoliatory Modes and Means
    - 2. Destruction of Unearned Increments, or Redirected
  - Conditions
    - 1. High Moral Development
    - 2. High Intellectual Development
    - 3. Civil Liberty, Sovereignty of the People
    - 4. Wise Legislation and Law Enforcement

BOOK IV.

CONSUMPTION.

CONSUMPTION is the department of economics which has for its object the consideration of the modes, means, and laws of the disappearance of actual wealth in the hands of its ultimate possessors. The processes of growth, increase and decrease, of potential wealth, have been sufficiently treated in Part II of Book I, on the Production of Wealth, and in Book III, of Distribution; and since the processes of appearance and disappearance of potential wealth are entirely different, and governed by different laws, from those of actual wealth, consumption as here treated is limited to the latter. If any cause, unattended by destruction or consumption of utilities, cause certain stocks or other potential values to fall greatly in price, certain men lose; but what they lose others gain, and it becomes a process of distribution, the total of available utilities going to promote the welfare and happiness of men remaining unchanged. And so, if all potential values were destroyed, the total of available utilities would remain the same, though the motives influencing men in the production, exchange, and distribution of wealth would, doubtless, be greatly changed. While the appearance and disappearance of potential wealth may greatly affect the consumption of real wealth, *ops de facto*, it does this through distribution, which must here be considered a means; as directly affecting man's material prosperity utilities only must be considered.

CHAPTER I.

THE MODES OF CONSUMPTION.

THERE are three principal classes of modes of consumption of wealth; viz., *(1) the Destructive, (2) the Productive, and (3) the Fruendive modes.* They will be considered in their order.

1. Destructive Modes of Consumption.— There are various ways in which wealth disappears, by act of man or by nature, whereby the wealth is not devoted to the end designed in its production. Such modes may be appropriately termed *destructive modes.*

a. By Act of Man.— When nations or tribes are at war with each other, each does all it can to cripple the other by all means within its power. Wealth of an enemy destroyed takes from his resources, and diminishes his power of resistance. Waste by war, brigandage, revengeful or self-defending depredation of individuals or bands of individuals, must all be included in this class of modes of destroying wealth — placing it beyond the power of human enjoyment.

b. By Casualty of Nature.— Besides those mentioned in the preceding paragraph, there are other modes of disappearance of wealth, in which man is not a factor, or, at least, an unwilling one. Loss of property by fire, flood, corroding action of elements, misapplication of forces, whereby loss is sustained by casualty — without the design of man — are included in this subclass of modes of consumption of wealth.

2. Productive Modes of Consumption.— While in destructive consumption wealth utterly fails of application to the end for which it was designed in production, in *productive consumption* there is also waste, or loss, but it is a waste which is necessary, and is therefore designed. Whether the waste be large in proportion to wealth produced, or greater than the wealth produced, or whether the waste be unattended by production of wealth, if such be the design of wealth applied to production as capital, the waste is productive consumption. It is evident, from the definition of capital previously given, that all wealth disappearing as capital disappears by productive consumption.

a. Wear and Tear of Capital.— The various forms of capital, but more especially fixed capital, are subject to *wear and tear*, or deterioration by use. All implements and machinery become old and impaired by use, and finally become useless; or the wooden parts decay and the metallic parts rust; or the parts may be subjected to so great strain as to cause them to break. While men seek to reduce consumption of capital to such a minimum as is compatible with the highest efficiency in production, it is a necessary concomitant of production and is unavoidable.

b. Waste of Material in Production.— Besides wear and tear of capital, there is a consumption, or waste, of material in processes of production. The manufacturer must have materials for fuel, lighting, lubrication, and otherwise entering productive processes as subsidiary agents. The chemist requires reagents, and the agriculturist, fertilizers. Other industries require other materials, which are destroyed in their action as subsidiary agents in production.

c. Decay of Seeds in Germination.— Again, the agriculturist and horticulturist sow seeds, which are designed to germinate and reproduce of their kind, but which decay in the process. This mode, perhaps, might be included under the head of the preceding paragraph, but it is somewhat different in character and so important a mode as to require separate classification.

3. Fruendive Modes of Consumption.— The modes of consumption in which is the consummation of all the processes of production, exchange, and distribution of wealth are the *fruendive modes*. The highest material prosperity must be in the maximum of fruendive consumption — wealth directly applied to the satisfaction of wants. Fruendive consumption may be classified as (a) necessary, (b) luxurious, and (c) wasteful

a. Necessary Consumption.— As *necessary consumption* may be enumerated all consumption of wealth in satisfaction of the imperative demands of man's nature. It includes the consumption of what are termed the necessaries of life, wholesome food, clothing, and homes for protection from the elements. The necessaries all men must have; without them they must soon perish from hunger, thirst, cold, or disease.

b. Luxurious Consumption.— Those forms of wealth which are not necessities, but which contribute greatly to the comfort and happiness of mankind, may be placed into one great class — the luxuries of life; and their consumption by men may be termed *luxurious consumption.* It may not be easy to draw a sharp line between luxuries and necessities; since what might be regarded as necessities in one country would be regarded luxuries in another, and what one person would count a necessity another would esteem a luxury. But for the purposes and arguments of this work a rough division into two classes is sufficient.

c. Wasteful Consumption.— While all proper fruendive consumption may be included under necessary or luxurious consumption, yet luxurious consumption may become so lavish and extravagant as to defeat in a great measure the purpose of wealth, it contributing little or nothing to the happiness and enjoyment of the consumer. It then becomes *wasteful consumption.* There would seem to be reason for placing this form or mode of consumption under the class, destructive, to which it is closely related on one side, as it is to luxurious consumption on the other. But the fact that wasteful consumption usually contributes something to the happiness of the consumer, if no more than to gratify vanity, is sufficient reason for placing it under the class fruendive.

CHAPTER II.

MEANS, OR CAUSES, OF CONSUMPTION.

FOLLOWING the general plan of classification adhered to in previous books, the means, or causes, of consumption will be divided into two general classes, as *proximate means* and *remote means;* the former more nearly immediate and direct, the latter mediate and indirect. It will not be easy or necessary to enumerate all the causes of consumption; the more important only need be discussed.

1. Proximate Means.— Among the proximate and direct causes of consumption may be enumerated both objective conditions and elements and subjective conditions. The more important are: (*a*) *destructive elements, and eroding and corroding agencies,* (*b*) *hostile organisms — parasitic life;* (*c*) *inclemency of environment;* (*d*) *hunger and thirst, caprice of the mind — wants.*

a. Destructive Elements.— It is a fact well known to every one that the *destructive elements,* fire, electricity, water, and the destructive conditions of drought, friction, and chemical affinity, are agencies in the consumption of wealth in destructive modes; they are also the chief agencies of waste in productive consumption. Fire destroys property in conflagrations — accidental or purposive; the electric current from the clouds destroys valuable utilities; the floods of water overflow and wash away the soil, carry away and destroy movable utilities, and deteriorate land improvements; drought parches vegetation and indirectly affects animal life; friction wears out machinery and lubricators; wind, rain, ice, and snow likewise wear away such utilities as are exposed to them; while chemical affinity causes property to go to decay by slow corrosion as well as by fire.

b. Hostile Organisms Parasitic Life.— Among *hostile organisms* may be enumerated microscopic fungi and parasites, which attack and destroy both vegetable and animal organisms; also hostile and destructive birds, animals, reptiles, insects, and noxious weeds. These not only require labor to protect against them, but they are organisms which destroy wealth which has been produced. As hindrances they are agencies limiting production; as destructive agents they are means of consumption.

c Inclemency of Environment.—Out of the *inclemency of environment* arises the necessity for clothing and houses for protection from cold, heat, and rain; it is therefore a direct means of consumption of wealth as fruendal.

d. Hunger, Thirst, Caprice of Mind— Wants.— Out of the subjective conditions of *hunger* and *thirst* arises the necessity for food and drink; while out of the *caprice of mind*, or wants generally, arises the demand for the various other forms of wealth consumed as fruendal. The subjective conditions, then, must be regarded as agencies or means of consumption. They are agencies in production first; but they cause production of utilities only because of the satisfaction which men have in the consumption of wealth as fruendal.

2. Remote Means.— The *remote means* of consumption are those complex causes which affect consumption indirectly or through the mediation of others more simple and direct. There are many such causes. Those of first importance may be included under the following: (a) industry, (b) taxation, (c) distribution, (d) social condition. Like other complex causes considered in this work, they can not be considered as independent of each other or as mutually exclusive, but they overlap each other in their action. Thus industry may affect taxation; both may affect distribution, and through distribution, consumption; all three may affect social condition, and social condition may in turn affect them; each may affect consumption by a shorter chain of causation or by a longer through any one of the others.

a. Industry.— Industry is one of the greatest agents in consumption; it is a means of all productive consumption of wealth in the form of capital. When such consumption is of high efficiency in production,— that is, when the capital is made to do the greatest amount of work in production,— increase of productive consumption in industry is promotive of higher fruendive consumption; for high efficiency in production brings fruendal down to a lower and lower labor cost, increases the supply of fruendal, and places an increasing share of the latter form of wealth within the reach of all consumers. When industries diminish in number, curtail their product by short time, or cease operation for any cause, the effect is to rapidly curtail consumption in both productive and fruendive modes; and for the reason that lessened production means lessened wear and tear and deterioration of capital, and the lessened wages paid laborers diminishes their ability as consumers to buy.

Again, freely competitive industry favors equitable distribution of wealth and the highest social conditions of all classes of people — the conditions of highest fruendive consumption.

Finally, monopolized industry and limited production promote inequitable distribution of wealth, inequitable distribution of the burdens of taxation, the degradation of the masses in social condition — thus stimulating wasteful consumption on the part of the wealthy few, but diminishing fruendive consumption on the part of the many.

b. Taxation.— Considered primarily, *taxation* is a governmental function whose object is the protection of citizens, that they may individually pursue such vocations, avocations, and pastimes as will not interfere with the equal rights of their fellows. The object of taxation is, first of all, to secure to all citizens the highest degree of civil liberty. Included under legislation, it has been considered as a means both of production and distribution of wealth. But taxation is also a means, or cause, of the consumption of wealth. For the maintenance of justice, equity, security, and happiness of a people, executive, legislative, and judicial branches of government must be supported. Vast sums of money are expended each year for the maintenance of the various branches of government. This money is converted into various forms of wealth and consumed in the various modes. Were all men wise and energetic enough, and moved by the highest moral principles and impulses, governments might be dispensed with, and the wealth now consumed in the various modes as directed by the necessities of government — by officers and employés — would be devoted to other objects, and an increased portion would be consumed by other classes as fruendal. Like friction in machinery, and all productive consumption, the wealth taken from producers and holders of wealth by taxation and consumed in various modes by agents and agencies of government, must be regarded as necessary waste, which can never be wholly eliminated, but which the highest material prosperity requires should be reduced to the smallest minimum compatible with the highest conditions of production, exchange, and distribution of wealth.

The practical application of the principles of taxation to distribute burdens equitably, as well as the application of taxation as a remedial agency, must be reserved for discussion in Book V of this work.

The canons of taxation vary according to the conditions under which taxation is imposed.

1. First, if we were to assume ability to pay in proportion to productive power, and the distribution of wealth equitable, all inequitable and despoliatory distribution being eliminated, and each producer being rewarded in proportion to the service to society performed by him, then *taxation should be imposed in proportion to the benefits the individual enjoys under the protection of the state*

This canon would seem to require the individual to be taxed in proportion to property in possession above incumbrance, and also in proportion to income. It is possible that the conditions of the canon might not be fully satisfied by taxing in proportion to property and income, since it is easy to see that one individual may be placed in such environments as to owe more for governmental protection than another of larger property and larger income; but it is doubtful whether in all cases the exact conditions of the canon could be satisfied, and such taxation is the closest approximation practical.

2. The conditions assumed as the basis of the canon discussed in the preceding paragraph are impossible under any state of civilization hitherto attained. First, individuals are not able to pay in proportion to their productive power. There is a minimum limit of subsistence; and when the limit of the individual's power in production is down to the limit of subsistence, there is no ability to pay, and, further, when his power of production is below the limit of subsistence, then the state must contribute to his support. Modifying the canon to account for this inequality of condition, it would be: *Taxation should be imposed in proportion to the benefits the individual enjoys under the protection of the state, as measured by his wealth and income above the limit of a comfortable subsistence.*

3. But, again, the distribution of wealth is not equitable; on the contrary, selfish individuals appropriate through various modes and means before discussed a larger share of wealth than to them rightfully belongs. While it is doubtless impossible to frame a general rule of taxation which would operate as a just remedy for inequitable and despoliatory distribution of wealth, a principle has been devised and widely advocated which is involved in the following rule: —

Taxation should be levied on property and incomes above the limit of comfortable subsistence in a ratio increasing as property and incomes rise above that limit.

To illustrate: If $500 property and $500 income be exempted from taxation, then property and income above $500 to $1000, we will say, would bear a certain rate of taxation; a larger rate on property and income from $1000 to $2000; and so on increasing the rate of taxation with the amount of property owned and the income received.

This principle is based on the assumption that distribution is inequitable in proportion to the amount owned and income received. This, of course, is very far from the truth, since property and income under equitable distribution would increase in proportion to ability, energy, and thrift of the individual. The application of the principle, therefore, places a penalty on these commendable traits of character as well as acquisition by inequitable and despoliatory means. The application of the principle would, for this reason, appear to be a makeshift justified only by failure of other remedial agents to correct despoliatory and inequitable distribution.

Besides the more direct effect of taxation in directing consumption, there are others more remote. An equitable adjustment of the burdens of taxation favors increase of production and increase of industry, making more wealth available for consumption. It would also favor equitable distribution, increasing the ability of consumers to purchase the wealth produced. And, again, it would raise the social condition of the masses, thus increasing their wants, leading to greater quantity and variety of wealth consumed. Finally, it is to be observed that graduated taxation, as mentioned under paragraph 3, would tend to equalize the distribution of wealth, and would therefore, through the various chains of causation, tend to increase fruendive consumption.

c. Distribution.— It is evident that the distribution of wealth is an important factor in determining consumption, both in quantity and quality. If wealth be held largely by the few, while the masses hold sufficient only for a scanty subsistence, all consumption is curtailed, and in proportion as the diversity of condition is aggravated. Wasteful consumption is stimulated with the few, but this increased consumption is not sufficient to compensate in quantity the lack of ability to buy on the part of the many. Under such conditions the greater consumption is of necessaries, luxurious consumption being confined to the wealthy. As the distribution of wealth approaches an equality, consumption of necessaries is increased, also luxurious consumption, while wasteful consumption is diminished. The total of consumption, however, is increased by the increased ability of the many to buy, which increased consumption, in turn, stimulates increased production of wealth to supply the increased demand.

Again, an approximation to equality of distribution favors a higher and higher social condition; and fruendive consumption is increased by the condition which increases the wants of men demanding satisfaction.

d. Social Condition.— With the advancement of man in social condition — which is here made to include a higher condition mentally, morally, and physically — his wants are increased, and with them consumption of wealth. The philosopher, scientist,

literary, or professional man has many wants unknown to the ignorant. Books, newspapers, scientific apparatus, expensive luxuries of ornament and dress, aggregating a large percentage of wealth consumed, are the outgrowth of civilization, entirely unknown to man in a state of barbarism. When the amount of labor required to supply the wants of the savage is compared with the amount of labor expended on the wealth annually consumed by the multimillionaire, we are amazed at the great diversity of their wants and the difference in the labor required to supply them. With the advance in civilization and the rise of the race to a higher plane, mentally and morally, the tendency is to divert consumption from the destructive modes and toward the productive and fruendive modes.

CHAPTER III.

THE LAWS OF CONSUMPTION.

IN the consumption of wealth is the highest economic good: for it is the end toward which all forces of production, exchange, and distribution of wealth are directed.

In general, the producer of wealth looks to consumption of wealth, in whatever mode it may be, to create a demand for his wares, taking no thought as to how the disappearance of wealth takes place. He acts upon the assumption that the same effect will be produced upon the market, whether the goods are consumed as fruendal, contributing to the comfort and happiness of mankind, or destroyed by fire, flood, or war. A little thought given to the subject, however, will make it evident that it does make a difference to society generally whether wealth be consumed in destructive or productive and fruendive modes. A destruction of wealth lessens the volume of usables which can be made to contribute directly or indirectly to man's welfare. And if there be an equal or equitable distribution of wealth and losses, each individual must be the poorer for the losses of wealth by consumption in destructive modes than he would be were the wealth consumed in one or more of the productive or fruendive modes.

There is an apparent contradiction to this statement found in the remarkable periods of prosperity which have been observed to follow, without exception, destructive wars. So striking have been these periods of industrial and commercial revival, following on the heels of a great war, that some economists have reached the generalization that wars are necessary factors in promoting material prosperity and progress. But when properly analyzed, war will be found to be nature's remedy for a disease which has attacked the body politic and rendered it incapable of further progress. The following will apply to the history of nearly all nations industrially and economically considered :-

In the beginning of the history of a nation which arises out of barbarism, or from the ruins of a shattered and dismembered empire, or from colonization of a new country, men are more nearly equal in social and industrial condition, than at any other period of its history. Then the laws of competition effect an approximate equitable distribution of wealth. Under such conditions consumption keeps pace with production ; laborers find employment ; and producers of wealth find ready markets for all their wares. But, as the country grows older, the few, whether by just or inequitable means, gather to themselves a greater and increasing portion of wealth. This diversity of condition gives opportunity, by the various modes and means pointed out in Book III, for the more favored few to take so large a share of the wealth produced as to leave the masses in a condition of dependence upon them. The impoverished can not buy and consume, except in a degree sufficient to maintain a bare subsistence ; and the curtailment of consumption necessitates diminished production ; the captains of industry discharge their men when profits disappear. This lack of employment increases the competition of laborers until they are reduced to the limit of subsistence, when the great masses are forced to accept work for the most scanty support of themselves and families. Indeed, in such condition, people willing and anxious to work may starve in a land of plenty, where the bounties of Providence are all that could be desired. This chain of causation, once begun, continues to go on in a vicious circle, or descending spiral of industry, until some cause arrest its progress. This cause is usually a revolution by discordant and desperate elements of the state, or a war between nations, or sections of the same people. By war, accumulations of wealth are to a greater or less degree swept away, and the people approximate more nearly to a level in social and industrial condition. Men are called to bear arms, reducing the number of producers and augmenting consumption, aside from wealth actually destroyed by war. To fill the great void produced by increased consumption in all modes, all the productive forces of the people are taxed to their utmost capacity. Increased consumption causes a rise in prices, which is a means of equalizing distribution by transferring values from creditor to debtors, and competition again is powerful to approximate an equitable distribution of wealth. This period of revival continues until the forces of concentration are again set in motion, and history repeats itself in unending cycles. And this we may expect to continue to be the remedy of arrested progress, until man shall discover a more excellent way of equalizing the distribution of the product of his industry.

Destructive consumption of war, therefore, can be

considered a mode favoring material prosperity, only because of the power of war to level down conditions, and distribute to the producing classes a larger share of the product of their labor.

What is said of destructive consumption of war applies with equal force to all consumption in destructive modes. And were inequitable and despoliatory distribution of wealth eliminated from the problems of economics, by the application of remedies not destructive of wealth, the conditions of highest material prosperity would require: —

1. That consumption in destructive modes be reduced to a minimum, by causing destructive means to vanish, diminish, or be diverted to other modes.

In all productive processes there is a greater or smaller consumption of wealth, which varies greatly under varying conditions. A mine may be sunk, at great labor and expense, with the expectation of taking from it valuable metals, minerals, oils, or gases. This mine may yield a large profit on the investment, a small profit, or none at all. The whole investment of labor and capital may, indeed, be lost, the excavation being worthless. A grain of wheat has been known to produce eight thousandfold, the expenditure of seed being thus only one eight thousandth. It may produce but ten or fifteenfold (a good average in American farming), or the seed may be lost, the crop not being worth the harvesting. High skill may reduce the wear and tear of machinery to a minimum, or lack of skill may cause sufficient consumption in this mode to wipe out profits of industry.

So, in all arts, trades, and industries, high intelligence and skill at the same time direct forces so as to utilize their highest efficiency and reduce to a minimum productive consumption in wear, tear, and decay. If skill makes a machine efficient for ten years, while lack of skill renders the machine worthless in five, then skill has in the time saved the labor in constructing the machine, which labor may be otherwise engaged in production. It will be seen that, in all forms of productive industry, the principle which governs production is: —

2. *The highest production with the smallest expenditure of productive forces and the smallest loss in productive consumption.*

As all agents in production, exchange, and distribution of wealth, not antagonistic to those processes, are subordinate to, and exist for, consumption, so all modes and agencies in consumption, not antagonistic to designed consumption (or consumption of wealth in a manner designed in its production), are subordinate to, and exist for, the ultimate mode, fruendive consumption. The proportion of fruendive consumption to other modes varies with conditions. When profits rise from advance in prices or any other cause, men deny themselves fruendive consumption by cutting off luxuries and wasteful extravagances, or even reduce their necessaries to a lower quantitative level, in order that they may invest capital in productive industry, in anticipation of greater wealth and greater enjoyments at some future time. Under reverse conditions all consumption declines, but productive consumption more rapidly than fruendive, at first, until such a time as bankruptcy causes the loss of original investments in productive industry, when productive consumption may be greatly increased, but without reward in the production of wealth. From these considerations it appears that the highest material prosperity requires:—

3. *A maximum of fruendive consumption for the satisfaction of wants, compatible with the maintenance of maximum production of valuable utilities.*

CHAPTER IV.

POPULATION AND SUBSISTENCE.

THE problem of equilibrating the forces tending to increase population with those which supply the means of subsistence was brought into prominence by the work of Thomas Robert Malthus, which appeared in England in 1798. There is nothing startling or even remarkable in Malthusianism, as taught by Malthus, that has given to his name an unenviable immortality; but it is rather in the perversion of his doctrines and the misapplication of them which has been made by subsequent copyists.

Briefly stated, the doctrine of Malthus is this: That the tendency of all life forms, when in a favorable environment and under no restraining influence, is to increase by reproduction in a geometrical ratio, while the means of subsistence can, at most, be made to increase in an arithmetical ratio; and that, therefore, the limit of subsistence will ultimately be reached, and a check of some kind be interposed to the further increase of population. These checks or restraints may be mental, moral, and self-imposed by the individual; or they may be in an unfavorable environment, as hostile forces attacking the weaker, prohibiting propagation of species and destroying those individuals most vulnerable by the attacking forces. Such checks are war, famine, disease, and destructive competition of individual with individual. He showed from scarcely

adequate data that the tendency of population, under favorable conditions of subsistence, is to double once in a quarter century. From data which he does not give, generally thought to be an admission not based on any statistical facts, but assumed for sake of argument, he argued that subsistence can at best increase in an arithmetical ratio; that is, assuming that the productiveness of land can be doubled in the first twenty-five years, it could not be doubled the second, but could only be increased by an equal amount, and so on for each period. With this basis for reasoning, population would be sixteen times as great at the end of a century as at the beginning, while the means of subsistence would be increased to only fourfold. At the end of two centuries population would be two hundred and fifty-six times as great, while subsistence would be increased to eight times what it was at the point of beginning. Thus, were there no restraints to propagation of species, but a few centuries would suffice to populate the earth so densely that there would be no room for more. But the means of subsistence lag behind in a slow arithmetical ratio; and hunger, cold, and disease soon carry off the weaker, while many of the strong, from defective nutrition or other unfavorable conditions of environment, degenerate and become sterile. Or, in higher conditions of civilization, individuals impose upon themselves voluntary restraints, and thus arrest the rapidity of increase of population. Malthus advocated the mental and moral restraints, self-imposed by individuals, as the preventive of the more terrible remedies otherwise inevitably imposed by nature. While the estimates by Malthus as to ratios of increase of population and the means of subsistence are of little or no value, his work made obvious what had before been known, but which had not appealed strongly to men's minds. Whatever may be said of the ratio, it is evident that the tendency of population is to increase; and the more rapidly, the more favorable the conditions under which men live. It is further evident, without argument, that there is a limit to the number of people who can maintain a subsistence on this planet. But that the limit of subsistence has anywhere been approximated to is not true; nor will it be, probably, for many centuries to come. The doctrine as enlarged upon by later writers — and the addition of the false doctrine of "diminishing return of land" — made Malthusianism a refuge for that class of wealthy sentimentalists who feel pained and shocked at the want and misery in the world, but who, nevertheless, are unwilling to share their affluence with their unfortunate brothers, and seek some way of putting the responsibility for the unhappy conditions which they see upon Providence or some inevitable law of nature. "True," they say, "there is want, poverty, and misery in the world; but it was so ordained; the unalterable laws of political economy show that population increases faster than subsistence, with the inevitable result that disease, pestilence, famine, and war are necessary to preserve the equilibrium of forces. Men will take the responsibility of raising families; and when population encroaches on subsistence, then nature metes out her severe but just penalty. Did not Christ say, 'The poor ye have always with you'?"

Such is the hypocritical cant and horrible doctrine

of Malthusianism, as still argued by some apologists for human degradation. These Pharisees have perverted the doctrine of Malthus, and made his name hated, though he doubtless never surmised the use to which his doctrine would be put.

Some recent writers, in their zeal to refute Malthusianism, have gone to the extreme of denying the principles taught by Malthus, *in toto*. They deny that there is any tendency of population to increase in a geometrical ratio, and especially that there is a tendency to increase faster than the means of subsistence. They cite the great inventions of the last century and the vast impetus given to productive industry by them, making man's productive power now several times what it was at the beginning of the century. They cite the great fecundity and prolificness of the various species of food-producing plants and animals. From such inductions they arrive at the generalization that man's powers of producing the means of subsistence are greatly in excess of the demand for consumption — that powers of production outrun population. We have, therefore, at the close of the nineteenth century a class of apologists who hold that there is too much food, too much fuel, too much cotton and wool, too much of everything that man needs, and that the low prices due to such overproduction are the cause of the great suffering in the middle and lower classes of society. Acting upon this deduction they form trusts and syndicates whose business it is to limit production and maintain prices, thus correcting the tendency to overproduction.

It is doubtful whether any well-informed people adhere to the doctrine of overproduction, since it involves an obvious absurdity in reasoning; that is to say: "The ease with which men produce what they want causes them to produce so much more than they want that they suffer want because of the low price their produce brings." These apologists must see that the very ease of production, if there were an equitable distribution of the product of labor, would diminish the necessity for work, and overproduction would be self-corrective. Men do not work except as wants compel. It may then be assumed as a generalization susceptible of the highest inductive proof, that men never labor to produce what they do not want or more than they want. And from this premise, and also that each producer enjoys the just reward of his labor, the deduction is inevitable that as to usables, such a condition as overproduction is impossible

The contention of Malthus, that population tends to increase in a geometrical ratio where the means of subsistence are easily supplied, must be admitted by all who are familiar with the increase in population of new countries. The population of the United States has doubled more than four times during the first century of its national existence; from which must be deducted increase from immigration. It can not be said that this country has been free from all restraints to increase of population, which restraints doubtless compensate our increase due to immigration. So, if we could secure the conditions which Malthus assumed, it is doubtless true that population would double once in twenty-five years, or oftener, as Malthus found by his investigations. It is also true that production of the means of subsistence is limited, and must be because of the limited area of tillable

land. The argument that production must keep pace with or outrun consumption, because of the prolificacy of food plants and animals as compared to that of the human species, most obviously ignores the limitation of space. If we might colonize other planets when there is no more room on this one, the argument would be valid and unanswerable. But if wheat increases 8000 fold in a single year, as has been known in exceptional cases and under the most favorable conditions, it is found that it does not increase twofold under other and unfavorable conditions; and if the production of wheat·increase at all, ultimately, when the best conditions are maintained, it must be by increase of arable land upon which the cereal may grow; and, finally, when all arable lands are occupied and the highest conditions of cultivation are attained, then will the further increase in production of that cereal be impossible.

While the main contentions of Malthus must be admitted, they can not be urged as any legitimate apology for the existing conditions of poverty and misery to be seen in all countries of the world, and shockingly obvious in many rated as highly civilized. By far the greater share of this poverty is chargeable to despoliatory and inequitable distribution of wealth, by modes and means already considered.

ANALYSIS OF BOOK IV — CONSUMPTION.

CONSUMPTION.

- Preliminary
- Modes
  - 1. Destructive
    - *a.* By Act of Man
    - *b.* By Casualty of Nature
  - 2. Productive
    - *a.* Wear and Tear of Capital
    - *b.* Waste of Material in Production
    - *c.* Decay of Seeds in Germination
  - 3. Fruendive
    - *a.* Necessary Consumption
    - *b.* Luxurious Consumption
    - *c.* Wasteful Consumption
- Means or Causes
  - 1. Proximate
    - *a.* Destructive Elements
    - *b.* Hostile Organisms — Parasitic Life
    - *c.* Inclemeney of Environment
    - *d.* Hunger, Thirst, Caprice of Mind—Wants
  - 2. Remote
    - *a.* Industry
    - *b.* Taxation
      - (1.)
      - (2.)
      - (3.)
    - *c.* Distribution
    - *d.* Social Condition
- Laws
  - 1. The Law of Vanishing Destructive Modes by Vanishing Causes
  - 2. The Law of Minimum Causes in Productive Modes of Consumption, for Maximum Production
  - 3. The Law of Maximum Fruendive Consumption for Satisfaction of Wants
- Population and Subsistence — Malthusianism

BOOK V.

APPLIED ECONOMICS.

CHAPTER I.

PRELIMINARY.

It is the object of the art of economics to apply the principles elaborated in the science so as to promote the highest material prosperity. While the science analyzes, classifies, and determines the modes, means, and laws of highest material prosperity, the art discusses the practical application of means to secure the highest material prosperity. It is *Applied Economics*. The field of applied economics is doubtless larger than that of any other art. As to production, it requires an exposition of all productive industries in detail, and the determination of the ways and means of eliminating conditions unfavorable to highest production. Likewise, as to exchange, it requires an exposition of present modes and means, and the solution of the problem of eliminating all but promotive means. In distribution it must solve the problem of effecting an equitable distribution of wealth, by the elimination of all but promotive modes and means. And, finally, in consumption, it must solve the problem of eliminating destructive consumption and of so distributing productive and fruendive consumption as to insure the present or prospective maximum consumption in the latter modes.

Within the limits of this small work but little can be said of applied economics; the discussion, therefore, will be confined to such questions as seem to be most difficult of solution, and such as affect most powerfully the welfare of the race. The problems of production have been slow of solution for ages; but in this direction men have seemed to profit more by the experience of their predecessors than in others. During the nineteenth century seemingly great strides have been made, until we flatter ourselves that the problems of production have been mostly solved. Whether or not this be true, the problems seem now certainly to be in process of rapid solution by man's co-operation with his fellows and by harnessing the forces of nature to the appliances and engines of his invention. The importance of this department of applied economics can scarcely be overestimated; but the solution of its problems must be left to artisans, mechanics, inventors, and promoters of industry, and to treatises on the subjects involved. Supposing, therefore, other problems of economics solved, including the elimination of destructive consumption and the most economical application of productive consumption, all problems of consumption will be solved; for, under conditions of highest production, exchange, and equitable distribution of wealth, fruendive consumption is self-regulative.

The problems which will be discussed in this work, therefore, are those which have a more direct application to exchange and distribution of wealth. There is so great a diversity of views as to the proper solution of these problems, that little more can be done than to give opposing views and to harmonize them as far as possible. There are two extreme and opposing theories which are made working hypotheses for remedying existing evils in the social and

industrial conditions of men. There are many others which partake in a degree of both of these theories, but do not accept all the dicta of either. The extreme theories are denominated Anarchism and Socialism. While these theories have been confused in the popular mind, being regarded as different in unimportant particulars, and some writers, even, classifying anarchism as a species of socialism, they are in fact so opposed to each other as to have apparently nothing in common. They are so typical as to make them valuable standards for comparison of all other theories, which must be placed as intermediate theories, or means between the typical theories taken as extremes. For this reason it will be important to give a brief outline of these opposing theories before discussing others.

CHAPTER II.

ANARCHISM.

THE system of social philosophy known as Anarchism was first promulgated in France by Pierre Joseph Proudhon, from 1840 to 1865. It was enlarged upon and systematized by Michael Bakunin, who became a disciple of Proudhon about 1847. It is the most radical form of individualism which can be imagined. Its fundamental ideas are justice, liberty, and equality. It recognizes no authority of God or man. The laws of nature only are superior to man, and to these only should he subject himself. All forms of governmental and ecclesiastical restraints are oppression, and should be destroyed. With all restraints removed, men will learn to act in accordance with the laws of their being, and all violence and strife will disappear. Co-operation and advancement in knowledge will be effected by voluntary associations of men in which there is no compelling law. In complete liberty is the potency of causes effecting the highest progress and the most rapid elimination from society of all violence and injustice. Perfect justice can exist only with perfect liberty — liberty of thought and act. But the highest justice and liberty can exist only with absolute equality of individual with individual. A day's labor is worth a day's labor regardless of what its productiveness may be. The weakest and most ignorant must in justice receive the same reward for his day's labor as the strongest and most learned. All men should

work according to their ability and receive according their needs. It was a famous saying of Proudhon, that "property is robbery," (la proprieté est vol) by which he meant to teach that the wealth, or property, which some have accumulated, above that possessed by their fellows, has been stolen, or appropriated by men in unjust profits, or filchings, from the earnings of other men. There should be no rich, no poor.

Bakunin says in his "Dieu et L'Etat:" "The liberty of man consists solely in this, that he obey the laws of nature, because he has himself recognized them as such, and not because they have been imposed upon him externally by any foreign will whatsoever, human or divine, collective or individual." When man once discovers nature's laws, he can not but obey them; and as man suffers no restraint by any external will, so he can not impose his will on another. Perfect liberty and perfect equality are the conditions of perfect justice. To establish such conditions men are justified in employing such means as are adequate, education and persuasion, and, if need be, revolution. All systems of government, civil and ecclesiastical, and wage labor (labor for wages) are conditions of slavery, to be swept away with all possible speed.

Such are the doctrines of anarchism, the most revolutionary and destructive anywhere to be found in the history of philosophy. In anarchism the individual is everything, and the bonds of society and government are all dissolved, except as to the voluntary out-flowings of man's nature to his fellow in brotherly love. Yet, under certain imaginable conditions of mankind, it would be a most perfect and beautiful philosophy. When man has reached such a high state of knowledge and moral development as to know that his own highest good is to do unto his fellows as he would that they should do unto him; when the higher and intellectual and moral powers hold in subjection the lower selfish and animal propensities, then anarchism will be an ideal state of man's existence, one in which the necessity for restraints of any kind will no longer exist. But to assume that the destruction of governments will be the means of leading men to that ideal state is a proposition, to establish which there has been no sufficient induction. Indeed, the induction seems to be, with man self-centered — acting from purely selfish motives — that the weak must yield to the strong, that self, which regards only the satisfaction of its own wants, attempts to impose its will upon others — to tyrannize over all weaker beings. The application of anarchism to human affairs must therefore appear to be a backward step in evolution. Darwin's principle of the "survival of the fittest" is such an application of individualism to the lower organic world; the weaker are destroyed by the stronger and an unfavorable environment, and, assuming that the strongest are the fittest, the fittest survive. But this is not a condition of freedom; the constant warfare of species with species, form with form within the species, imposes the most rigid restraints. And as men have advanced in the scale of mental and moral development, the strongest have come to be regarded as not necessarily the fittest; and, with the growth of altruistic sentiments has come the higher human law: "The protection of the weak against the strong, the just from the unjust."

Anarchism has in view the highest ideal state of

mankind, but it overlooks the necessary steps by which the race is to reach that high plane. Its affirmations of what man should be in a perfect state are in the main true; but its denials as to the use of and necessity for restraints are mostly wrong. While perfect freedom is the highest state, the attainment of it in nature is by successive steps of elimination of restraints, and not by leaps (per saltus). In the inorganic world of nature we find that the material elements act only as they are acted upon, in a motion the most completely constrained. In the vegetable and lower forms of animal life we find the foreshadowing of will, exemplifying a higher power of selection than is found in mere chemical affinity of elements. In higher forms of animal life true volition appears, and another degree of freedom is added to that found in forms beneath in the scale of being. In man a still higher degree of freedom is found; but he is still under the restraints imposed by physical environment and social condition. And, finally, these restraints can be removed, one after another, only as the necessity for them disappears; and this involves a gradual change in man's mental and moral nature.

CHAPTER III.

SOCIALISM.

SOCIALISM, as a school of social philosophy, assumes, in common with anarchism, the ideal condition of the human race, toward which all progress must tend, to be "the liberty and equality of man." But, as to the modes and means to be employed in reaching this ideal condition, socialism is diametrically opposed to anarchism. Anarchism holds the law of the individual to be the highest law — that man, acting in accordance with the powers conferred upon him by nature, is a law unto himself. On the contrary, socialism assumes that the organic law of society is a higher law than that of the individual; that the individual is but a component part of a great organism of which society is the whole; that the individual as a part must be subordinated to the whole — be forced to act in harmony with the various parts, and thus with society as a whole.

It may appear from the brief outline given of the philosophies that anarchism premises the extreme of individual liberty, and socialism, the entire absence of it. A careful analysis, however, will show that the liberty assumed by both is the same. The former assumes for the individual complete liberty of action. But, as all men are equal, no one individual can impose his will upon his fellow man. His liberty, therefore, is such only as will not conflict with the equal liberty of his fellows. Socialism requires that

all parts of the social organism act in harmony with each other — that no part can act in conflict with other parts. Yet within the limits of harmonious action — a large field for volition and the same as is assumed by anarchism — there is the utmost liberty, or freedom of action. The differences, therefore, between the two schools of philosophy are not in the fundamental, or ideal, condition assumed, but in the modes and means of attainment of that condition.

The beginning of modern socialism may be dated at 1817, when Robert Owen laid his scheme for a socialistic community before the House of Commons. Like the philosophy of evolution, it is not the creation or invention of any one man, but a growth, the beginnings of which may be traced far back in the history of the race. There are almost as many modifications of socialism as there are apostles, the earlier writers, Owen, Fourier, Saint-Simon, Louis Blanc, differing considerably from each other. The modern German school, founded by Karl Marx, has doubtless been most influential of any promulgated; and most systems advocated at the present time have drawn largely from his great work (Das Kapital, 1st vol., 3d ed., Hamburg, 1883; 2d vol., 1st ed., Hamburg, 1885), or from the voluminous works of his many disciples in Germany.

Socialism may be defined as a system of social philosophy which proposes to do away with the existing system of competitive labor, and the control of industry by private capital, and substitute therefor state ownership and control of all the means of productive industry.

There are other propositions advocated by various writers, but this is the distinctive and fundamental doctrine which separates socialism from every other social philosophy. Its maxim, as to reciprocal duties of individual and state is: "From individual to state, according to ability; from state to individual, according to needs." Socialism would, of course, not take away the present governmental function of protecting individual rights, but would extend the function to the control and regulation of industry. There would be no competition, but co-operation would prevail to its greatest economic extent; and, since all individuals put their product into one common fund, in which all are equal partners, there would be no incentive to destruction, but, rather, an incentive to eliminate all destructive forces. Since theft, robbery, and other crimes against property rights grow out of private ownership, state ownership would eliminate all such crimes. For there would be no buying nor selling, as between individuals, and the thief and robber could not, therefore, profit by their crimes. The social and industrial conditions being equal, all crimes would be eliminated in a few generations, by removing the conditions of environment in which crimes thrive and are perpetuated.

The reforms proposed by socialism are radical in the extreme, and revolutionary; though, as proposed by some advocates, they should rather be designated by the term "evolutionary." All advocates of socialism condemn competition in the strongest terms, in whatever form it may appear. They charge at its door nearly all the crime and misery in the world. "Competition," they say, "makes Ishmaelites of all mankind." As was predicted of the son of Hagar, "His

hand will be against every man, and every man's hand against him;" so competition keeps all men in a warfare with each other — pitiless, relentless. From such warfare the strong only can survive. Hence, socialists insist in the demand that co-operation shall be made everywhere to prevail, and that competition shall be utterly destroyed. They maintain that the control of industry by capital, a system growing out of, or resulting from, competition, places all men into two classes, masters and slaves, exploiters of labor and laborers; and, therefore, that the inequality of condition renders justice and happiness among men impossible to attain.

The various modes by which it is proposed to effect the change from capitalized industrialism to socialism are interesting problems in sociology and the science of government; but what immediately concerns us, in the discussion of economic questions, is whether socialism is a remedy, and, if so, the best remedy for the inequitable distribution of wealth. And these questions being settled in the affirmative, it is important to know whether socialism will so operate in the production, exchange, and consumption of wealth as to make it a system in practice promotive of the highest material prosperity.

First, most systems of socialism now promulgated propose an equal distribution of wealth. The question arises, Is such a distribution equitable? While such a distribution is evidently just as between the strong and the weak, the well and the sick, supposing all men to contribute their labor to society in accordance with their ability, it would be manifestly unjust and inequitable as between the willing worker and the writers, but this is the distinctive and fundamental doctrine which separates socialism from every other social philosophy. Its maxim, as to reciprocal duties of individual and state is: "From individual to state, according to ability; from state to individual, according to needs." Socialism would, of course, not take away the present governmental function of protecting individual rights, but would extend the function to the control and regulation of industry. There would be no competition, but co-operation would prevail to its greatest economic extent; and, since all individuals put their product into one common fund, in which all are equal partners, there would be no incentive to destruction, but, rather, an incentive to eliminate all destructive forces. Since theft, robbery, and other crimes against property rights grow out of private ownership, state ownership would eliminate all such crimes. For there would be no buying nor selling, as between individuals, and the thief and robber could not, therefore, profit by their crimes. The social and industrial conditions being equal, all crimes would be eliminated in a few generations, by removing the conditions of environment in which crimes thrive and are perpetuated.

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But supposing equality of distribution to be made consistent with justice, a question arises as to the efficiency of socialism to promote progress, and through it, the highest material prosperity. The most serious objection urged against the socialistic plan is that it would remove the strongest motives for activity in the production of wealth and for the protection of property and family. It is observed throughout nature that opposition is the great stimulant to activity. Nations and tribes at war with each other are stimulated to their highest activity. Men in the temperate zones, where subsistence requires a struggle, are more energetic, active, intelligent, and progressive than those in the torrid zone, where the necessities of life grow spontaneously and in luxurious profusion, where men have only to put forth their hands, and partake of

the bounties of nature. So in a warfare of business and industry there is the utmost activity; and though the weak must succumb, the general fund of production is increased by the increased activity. The man who must struggle with debt or any other business burden, if it be not so great as to overwhelm him, is much more active, as a rule, than he who bears no such burden. Again, since men would see, under socialism, no advantage to themselves individually by great activity, all rewards being equal, many would do as little as possible, instead of doing most to increase the common fund. From these considerations it is argued that socialism would make us a race of unprogressive drones.

No doubt this objection is a serious one, as most men are now mentally constituted. But we have now among us examples of men active and progressive to the highest degree, who are nevertheless almost wholly moved by other than selfish motives. The philanthropist applies himself to his work with zealous energy, and with no thought of personal gain. The philosopher and scientist delve deeply into the hidden mysteries of nature's realm, with an absorbing interest merely in discovering truths before unknown. Many an inventor works unceasingly and untiringly to produce some new combination, purely out of love for invention, though, doubtless, the great majority have gain as their ultimate end in view. These citations will be sufficient to show that it is possible for humanity to reach such a stage of progress as to be beyond selfish motives. It is urged, and it would appear, that the same selfishness that makes men scramble with the greatest activity to supply themselves with wealth, would, under socialism, cause them to draw their equal share from the common fund and give the smallest possible service for it. But it has been proposed to make use of selfishness in a socialistic system, as a motive to activity in men, by appealing to their love of honor and fame. Men would be placed in such positions, in the machinery of government, as they are competent to fill, as shown by their talents and attainments; and, in a competitive emulation, they would exercise their highest activities and powers, even as pupils at school strive for high marks and rank among their fellows.

Various experiments have been made to put into practice the principles of socialism; but thus far such experiments have not proved highly successful in contact with the existing system of competitive capital and labor. Yet it can not be said that these experiments have proved failures. They have demonstrated the great efficacy of co-operation in the production of wealth; and where they have disintegrated, it has been traceable to internal dissensions and jealousies, themselves the result of the selfishness of the individual members of the community.

In conclusion, it may be said, the difficulties in the way of practical socialism, chiefly in the mental condition and constitution of man, seem so great as to make the system little more than an ideal one toward which the march of progress is tending, and which will be realized at some future period, not remote as the cycles of evolution are counted.

CHAPTER IV.

THE SINGLE TAX THEORY.

Of all theories propounded for remedying inequitable distribution of wealth, none have attracted attention so widely or won adherents so rapidly as the *single tax theory* of Henry George. But two decades have elapsed since the first publication of his great work, "Progress and Poverty," yet his disciples are numbered by hundreds of thousands in this country and in Europe as well. His proposition is to abolish all forms of taxation except —

A single tax upon the potential value in land.

Mr. George has not in his works made use of the term "potential value in land;" but this proposition to tax land values, except land improvements, is one to tax that portion of land value designated in this work, potential value. The theory assumes that all land — using the term in a broad signification to include waters held in control, as well as all land, for whatever purpose — belongs to all mankind as a common heritage from the Creator. In this respect the assumption is the same as that of anarchism and socialism; but the single tax theory differs from those theories in recognizing the right of private property and the control of industry by private capital, competition being the means of equilibrating wages with profits, and both with distribution in other modes. Instead, however, of confiscating land for governmental use and control, the theory proposes to recognize private ownership, but to confiscate the rent of land. This is advocated on grounds of justice and expediency.

First, since all usables, or utilities having value, must come primarily from land, the source of all commodities which can satisfy human wants, and the occupation of which is the necessity of all industry, a tax upon land, or what is equivalent to it, a tax upon rent, must fall equally upon all property; and all must, therefore, pay for the support of government in proportion to the privileges and protection they enjoy under it.

Secondly, on grounds of expediency, it is urged that the single tax would reach all property without possibility of evasion. If all men must drink from a common spring,—and we may suppose land by a figure of speech to be such,—then if the spring be owned or controlled by the government, it can levy a tax upon all citizens which can not be evaded. No man would hold land unimproved when he must pay the same tax upon it as that bears which is most highly improved, similarly located. The tax under such circumstances would be so burdensome that no man would take up, or buy land, from the government, unless he could see a profit in its use. Yet a certain amount of land must be used, since all men must draw from it as the common source of all their wealth; and the man who occupies must collect a toll from all for the support of government. Speculation in land would thus be destroyed, and holders of large tracts of land for the rise in their value—for a value which is not earned by them—would soon let go

their holdings and seek wealth in some useful employment.

The single tax, it is urged, is not only expedient in the certainty and equity of taxation, but also in destroying the means of inequitable and unearned distribution as rent. Mr. George argued that the great cause of poverty in the world is in the unearned increment of value in land, which increases in value as population increases, gaining a greater and greater command over other kinds of property, until all other men become virtually the slaves of the landlords. They appropriate unearned the wealth produced by others, it being absorbed as rent. And were rent destroyed or confiscated by government, he argued, the principle of competition would be the means of distributing wealth equitably to all. Finally, it is argued that the system of the single tax would not require any revolutionary measures to carry it into effect. Recognizing, as single taxers do, that land is the common inheritance of all men, as air, rain, sunshine, and all bounties of nature, they hold that the single tax is the easiest method which can be devised to restore the virtual ownership of land to government and thus make it property in common.

The objections commonly raised against the single tax theory arise out of a misunderstanding of the real operation of such a law, and are generally made by those who have given the theory but a superficial examination. For example, it is often said that a single tax on land would be unjustly burdensome to the agriculturist, and would unjustly exempt other classes from taxation. This statement ignores the facts that all land not profitably used must go back to the government under such a system of taxation; that all men must have agricultural products and must pay such a price for them as will remunerate the producer fairly and pay the tax upon land, the agriculturist thus collecting the tax from purchasers of his products. The effect would thus be a depression of land values toward the limit of land improvements, and a rise in the price of the land products to cover taxation and equilibrate the agriculturist's profits with those of other industries. As between farm lands and city and mining lands, the burden of taxation would be much greater on the latter. Lands would be taxed at the valuation in excess of land improvements. While farm lands range from two to three times the land improvements, — sometimes but slightly above land improvements, — city and mining lands often rise to a valuation hundreds or thousands of times that of the improvements made upon them. The single tax would have the effect of depriving such lands of their high potential value, and the government would take that which now goes unearned into the pockets of the landlords as rent. Thus it appears that the single tax would favor the farmer as compared to the holders of city and mining lands. Railroad lands used as depot grounds and rights of way are also lands of high potential value and would bear a larger burden of taxation than agricultural lands; for the reason that the burden of taxation would always be in proportion to the potential value in the lands.

Most other objections raised against the single tax theory are as easily met by its advocates, all on the assumption that competition is powerful to equilibrate the profits of various industries with one another.

That is, if one industry prove more than ordinarily profitable, it will attract investors to itself until its profits are brought down by competition to an equitable rate as compared to others. It claims the merit of fostering all industries by removing all taxes from the various forms of capital, and, at the same time, placing a heavy penalty on holders of land unused.

As applied to land, the single tax theory is socialism; but as applied to industry it is individualism. As the theory aims, it would doubtless destroy the unearned increment of land value and thus remove one of the great modes, and its causes, of inequitable distribution of wealth. Mr. George has not, doubtless, overestimated the evils of landlordism in Europe and the great cities of this country; but the evils in this country are as yet much smaller in magnitude, owing to the large tracts of unoccupied lands accessible at so low a price as to be practically free. It is, therefore, only in the large cities where land is so monopolized as to make rent a great burden.

If we were to assume with Mr. George that competition would be, under his system, the only great distributing force, then, indeed, would rewards for labor be in proportion to services performed for society. But this is to ignore the great concentrative force opposed to competition, namely, monopoly. This, with other causes, direct and indirect, of inequitable distribution of wealth, would perpetuate inequitable distribution in other modes than that of the return of land as rent. The same causes would operate to produce inequitable distribution in profits, royalties, and interest, and the despoliatory distribution in increments of speculative value, increments of debt, and spoliation of war, gambling, and crime. From the analysis of the modes and causes of distribution given in Book III, it must appear that the single tax could remove but one of the great sources of inequitable distribution, namely, rent.

The chief merit of the work of Henry George is in that he has forced obtrusively upon the attention of the civilized world the great evils of landlordism, and the injustice, in the distribution of wealth, of the unearned increment of land values — the injustice of potential value in land. As to his criticism on our civilization, in this regard, his work is unanswerable. He proves incontrovertibly that private ownership of land, as it now exists in all civilized countries, is one of the greatest evils, if not the greatest, in our social system,— one which is responsible, in a large measure, for the existing conditions of men, where wealth and poverty are to be found side by side.

The weakness of the single tax theory, in practical economics, is that it attempts to correct a multifarious evil, due to a multiplicity of causes, with a single remedy. It is open to the same objection as a system of medicine which would prescribe the same drug for all diseases.

The wide acceptance of the theory shows the ability of men to see the evils which it aims to correct, and a readiness to espouse the cause of justice in seeking a remedy for them. It is a step in the direction of state socialism, toward which the movement of civilization seems to be. As a factor in the work of reform, "Progress and Poverty" will ever hold a high place; and for his pure motives and high purpose its author will ever have the gratitude and esteem of his fellow men.

CHAPTER V.

OTHER PROPOSED REMEDIES THROUGH TAXATION.

THERE have been many remedies proposed for the inequitable and unequal distribution of wealth, through the governmental function of taxation. Nearly all such remedies, however, are objectionable for the reason that they are propositions for redistribution to correct an inequitable first distribution. If a thief or robber have appropriated wealth which does not rightfully belong to him, there can be no doubt as to the authority of the administrative power of government to take such wealth from him and restore it to its original owners. But there can also be no doubt that to prevent the theft or robbery would be a remedy much better for society than to attempt to right a wrong after it has been committed. So a physician may find it necessary at times to use the knife or some other drastic remedy to remove a disease which endangers the life of his patient; when, if the case had been taken in time, the disease might have been prevented; hence, the maxim that "an ounce of prevention is worth a pound of cure." Likewise, to distribute wealth equitably should be an aim of all systems of practical economics; and redistributions by taxation, or any other system of taking from those who have much on the assumption that their holdings have been taken from society unearned, is a remedy justified only by an extreme condition of wealth congestion in one part of the body politic and of anemia in another.

1. Progressive Taxation.— As before shown, the canon of taxation requires that individuals be taxed — above a certain amount of property and income to be exempted as a necessary means of subsistence — in proportion to property and income. If wealth were equitably distributed, this would be unquestionably a just distribution of the burden of supporting the government. But in view of the great inequality of wealth, as to its distribution, it has been proposed to tax property and income progressively. For example: If the first one thousand dollars be exempt from tax, the second thousand would bear a certain rate; the third thousand, a greater rate; the fourth a still greater rate; and so on, until a limit would be reached at which the burden of taxation on wealth would equal the ability of the owner to compensate by his power of accumulation. The same mode of taxation, by rate progressively increasing with the magnitude of the income, has been advocated for application to individual and corporate incomes.

There can be no doubt of the right of governments to resort to such methods of remedying the inequality in distribution of the wealth of its people. If they be declared unconstitutional by the courts, it is to be remembered that the constitution is but a fundamental law, and as such it is subject to change by amendment. Yet this method of remedying the evil of inequitable distribution is objectionable on grounds stated at the beginning of this chapter, and, also, for the reason that it can not discriminate between

wealth accumulated by just and equitable means, and that inequitably accumulated. The same penalty is placed upon the man who, by honesty, intelligence, energy, and economy accumulates wealth, as upon him who accumulates by deception or any other means of inequitable distribution. It can not reward honesty and punish dishonesty; but, rather, places a penalty on possession and rewards non-possession.

2. Taxonomic Taxation, or Taxation by Class.— Another method proposed for remedying unequal distribution of wealth, termed the taxonomic system or method, is to classify all wealth which is made subject to taxation and levy varying rates of taxation upon the various classes. Thus landed property, real estate, above a certain exemption, would bear the highest rate and money the lowest of all forms of capital. Again, those kinds of wealth which are consumed most largely in luxurious and wasteful consumption would bear the highest rate of taxation of all kinds of fruendal, while those consumed in necessary consumption would bear the lowest rate.

This mode of taxation has never been worked out in detail, though it is put in practice in a crude and unjust manner in levying duties on imports. Such taxes are levied at varying rates on various classes of articles, the theory being to tax luxuries at the highest and necessaries at the lowest rate. However, the mode of levying specific duties and the inclusion of articles greatly varying in value in the same class operate so as to put the lowest tax, estimated by percentages, on the highest priced goods in the class. The taxonomic system might be practically applied, as a system of taxation on consumption, by the mode of levying ad valorem duties; but when the object of duties is the protection of industry, neither method can be applied as an equitable system of taxation. Ad valorem duties are open to the objection that they can be more easily evaded than specific duties, by false invoices made to deceive the collector of customs as to the real valuation of the goods. While legislators are supposed to have both objects of import duties in view in fixing the rates on various schedules, it is often the case that the influence of wealth on legislation is such as to make the impost laws, considered as a means either of protection or taxation, a real means of spoliation, by which the producers of wealth on the one hand, and the consumers on the other, are despoiled of their just earnings and possessions.

As applied to direct taxes, there has been no experience in this country with the taxonomic system, though much can be said in its favor. It would seem that certain kinds of wealth should bear a higher rate of taxation than others. Certain forms of fixed capital deteriorate by use, and finally as wealth they disappear. It would appear that such capital ought not to be taxed at the same rate as land, which, with proper care and cultivation, and with increase of population, does not deteriorate, but gives an increasing return for the labor and wealth expended upon it. So money, that it may perform its function of effecting exchanges perfectly, and be not made a means of speculation, should neither draw interest nor bear a burden of taxation. Many reasons may be adduced why all classes of wealth should not bear the same rate

of taxation. But, with all that may be said in its favor, the taxonomic system of taxation can not be made more than a crude, partial remedy for the inequitable distribution of wealth.

3. Taxation on Inheritance.— Another form of taxation whose object is the equalization of the distribution of wealth, is the tax levied on inheritance, bequests, gifts, and other transfers of property made in contemplation of death. It is argued in defense of laws which levy such taxes that the government, under whose fostering care and protection the decedent accumulated his wealth, should at least share in the division of his wealth with his family, who may not have contributed anything toward its accumulation.

Such taxes may be levied, and sometimes are, progressively, increasing with the value of the estate left at death. This form of taxation is less open to objection than that of "progressive taxation" on ownership, in that the government does not by it lay hands on property during the life of the person who has accumulated it, and thus discourage thrift, enterprise, and energy, but claims its inheritance only at death, when the decedent can have no concern for his possessions, except that a sufficient portion be devoted to the care of his family. And, as to this exception, governments usually exempt from taxation sufficient from the estates of deceased persons to provide for their families. This mode of taxation has much to commend it, though, like those already discussed, it is not an all-sufficient remedy for the inequitable distribution of wealth.

4. Escheat to the State.— Again, as to the estates of deceased persons, it has been proposed that the whole estate, above certain exemptions to provide for the family of the deceased, shall escheat to the state. This is an extreme extension of the principle of the inheritance tax law, and would prevent the continuation of great estates beyond the lifetime of the persons who accumulate them. This, like some others enumerated, is an heroic remedy, which can be defended only as a last resort — when the methods for preventing inequitable distribution fail.

5. Tax on Consumption.—A tax equal in percentage on all productive and fruendive consumption would be the reverse of a remedy for the unequal distribution of wealth; it would aggravate the evil, since the poor would be taxed much more heavily, in proportion to their ability to pay and the protection they enjoy under the state, than the rich. The poor usually have larger families and consume more of the necessaries of life than the rich; and a tax, therefore, upon necessaries is unjustly burdensome upon the poor. But when a tax is levied upon the consumption of luxuries, which are more largely consumed by the rich, the tax falls more heavily upon them, and serves to check their greater accumulation. This may be accomplished by levying duties on imports and taxes on the sale of certain articles of domestic manufacture. When it is found expedient to levy a tax on consumption, it should unquestionably be levied by the taxonomic method, placing higher and higher rates of taxation on those classes of articles the more and more confined, as to consumption, to the rich. If they have wealth to expend for luxuries, they are then the more able to stand the burdens of taxation.

Closing Remark.—Many different methods of taxation have been proposed for remedying inequitable and unequal distribution of wealth. Those mentioned in the preceding paragraphs are some of the more important of them. Much can be said in favor of each and all: but they are remedies which operate to level down inequalities without regard to the modes and means by which these inequalities are created. They are open to the objections stated at the beginning of this chapter, and are excusable and to be defended only because the more excellent way of preventing inequitable distribution has not yet been discovered by legislators. It will be the object of the succeeding chapters to suggest the lines along which the solution of inequitable distribution is to be sought, and the possible remedies to be applied in correcting existing evils.

CHAPTER VI.

MONOPOLY PROFITS AND PAUPERIZED LABOR.

In general, the effect of monopoly is to increase the profits of the industries monopolized and to reduce correspondingly the reward of labor. Since monopoly is one cause of the pauperization of labor,—though not the only one,—a remedy for monopoly would be a partial remedy, at least, for that great and growing evil.

Monopoly is the control by the few for the benefit of the few; its logical remedy is the control by the many for the benefit of the many. When an industry is of national importance and the great mass of people of the nation have an interest in it; when it is of state importance, affecting to a greater or less extent all individuals of the state; or when it is so localized as to be of interest to the municipality alone, a monopoly of the industry by individuals or a corporation is detrimental to the interests of the nation, state, or municipality, as the case may be. The remedy suggested by the nature of the evil is national, state, and municipal control. All people of the township or county are interested in highways, bridges, drainage, and public buildings; and these interests, therefore, should be township or county property, and under the complete control of those municipalities. In the city or village, all are interested in streets, walks, parks, public buildings, electric and gas lighting, telephones, street railways, water-works and supplies, and sewers; and for this reason, all these public interests should be owned and controlled by the municipality. In the state, certain great roads, or thoroughfares, canals, public buildings, penal, reformatory, and charitable institutions, inland streams navigable for small craft, harbors, quarries of stone, beds of gravel, with some others which might be included, are of state importance, and should be, therefore, owned, controlled, and operated by the state. Finally, in the nation, all people are directly interested in trunk lines of transportation, like railroads and interstate waterways, in telegraphs, mines of coal, oil, gas, iron, copper, gold, silver, and other minerals of general use and consumption, in the great waterways and harbors, in mail and express carrying, in money exchanges and transmission, and, possibly, in some other industries. For the reason, if for no other, that all are interested in these institutions and industries, they should be under national control. But they are so generally monopolized as to make them the means of taking, unearned by their beneficiaries, great fortunes from the earnings of the toiling and producing masses; and this is a strong additional reason why these great interests and industries should be owned, controlled, and operated by the general government.

One chief result of such a step toward socialism would be the destruction of the great monopolies. The railroad kings, the oil kings, the coal kings, and many lesser sovereigns would be deposed, and the sovereign people would be enthroned in their stead. And it would appear, with the great monopolies in the great industries destroyed, that no monopoly could be maintained in other industries, and that competition would be sufficiently powerful to equilibrate profits with profits and profits with wages.

Were the untold millions annually extorted by monopolies from the people left in their possession, it would be equivalent to an increased wage for their labor; and thus a destruction of monopolies would benefit the great mass of consumers directly. But where government, state, and municipal authorities control great industries, they must be great employers of labor. And were they to establish a minimum, reasonable wage at which they would employ laborers,—in case of the general government, in unlimited numbers,—then pauperized labor would be a thing unknown; for no captain of industry would have the power to force the wage level below that fixed by the government in carrying on the great national enterprises and industries. Private industries must pay at least the government rate or cease operations. If there came a period of business stagnation and men are thrown out of employment by individuals and corporations, the government would increase its operations sufficiently to employ the idle men, and levy higher taxes accordingly upon the wealth of the country to pay the increased expenditures, distributing the wealth so taken as wages. But were we to premise all men at work in useful employments and wealth equitably distributed, there could be no business depressions, no panics, no poverty and want. The anomaly, or absurdity rather, of a people being in want because they are able to produce so much more of the things which these same people need than there is market for, enforcing their idleness and depriving them of an opportunity of earning their living, would disappear with government control and operation of great industries. If all men receive living wages, they have means with which to buy; and when they can reasonably satisfy all their wants, there is a good market. And further, if there be a surplus of help above what is needed to produce what people demand to satisfy their wants, the government utilizes this labor on public work for the public good.

It would thus appear that government control and operation of great national industries would be a powerful check against the concentration of wealth in the hands of the few. For it would insure a living wage for all workers, and tax the wealth of the nation to pay it. It is when men are unemployed, and owners of money lock up their holdings for a greater command over commodities, that poverty, want, misery, and starvation stalk abroad in a land of plenty to mock the people with the cup of Tantalus —where their eyes may behold all that heart could wish, but where the longed-for satisfying fruits and potions are ever placed just beyond their reach.

There have been numerous objections raised to government control of industries—mainly the same as those brought against socialism. The two which are most worthy of notice are that it would encourage dishonesty and foster laziness, by giving no incentive to energy, push, enterprise, such as is given by the hope of gain in conducting private business.

As to dishonesty, it may be said that the post-office department of the government has been so systematized as to make it well-nigh impossible for its employés to defraud the government; and those who practise stealing from the mails are sure to be brought to justice sooner or later. Indeed, there is no private industry carried on at so small a percentage of loss by dishonest employés as now in the government postal service. It is not only possible but highly probable that the government could as easily systematize other great industries so as to reduce the possibilities of fraud to a minimum; though it is doubtless true that it would be better to take the great industries one at a time, not attempting the second until the first is well in hand, and so on in succession, until all the great industries of national importance are wrested from private management. The great danger of fraud, perpetrated by government officials upon the people, lies in the corruptive power of lobbies sent by great and wealthy corporations to the halls of legislation to promote or prevent legislation which they may deem favorable or prejudicial to their interests. And the obvious remedy for bad and corrupt legislation is the incorporation in our constitutions, both state and national, of the systems of proportional representation, and of the initiative and the referendum.

As to the second objection, there would a tendency, without doubt, to relax energy and interest in employment, if a lazy, dawdling service were to be rewarded the same as an energetic and enthusiastic one. But there would not be lacking the means of rewarding the latter by promotion to more desirable kinds of service, and also by increased pay. Then the minimum wage paid would not be so high as to tempt men to seek government employment rather than in private enterprise; and in private enterprise there would be all the more opportunity for reward of

labor in proportion to service rendered, when corporate wealth is shorn of its power to reduce men to a condition of industrial slavery.

The great secret of rapid growth in wealth and civilization is in co-operation and in the utilization of all the forces of labor, as well as those of nature; and when the government utilizes any and all surplus power which may be occasioned by a tendency to the concentration of wealth,— by a failure of equitable distribution,— it preserves the balance of industrial forces and prevents the otherwise inevitable descending spiral of industry; in which the rich grow richer and the poor, poorer, until revolution level down all ranks and conditions of men.

CHAPTER VII.

UNEARNED INCREMENTS OF RENT AND ROYALTY.

A REMEDY for the inequitable distribution of wealth as rent has been briefly discussed in Chapter IV of this book, on "the single tax theory" of Henry George. As has been stated, there can be but little doubt as to the efficacy of such a system of taxation to remedy the unearned increment of land values and rent. But if it be thought expedient to tax other property than land, as most economists hold, the question arises, Can another remedy for unearned increments of land values and rents be devised?

The "single tax" theory proposes to place all taxes upon land, and thus confiscate all value in land not that of land improvements. But it would appear that the same result could be reached by a system of overvaluation of land in assessment. To illustrate the mode of assessment and taxation, let us assume that a business block in a city has land improvements worth $10,000 to reproduce; also, that the block brings a rental of $2000 per annum. Again, we will say, the average rate of taxation levied upon land is two per cent., while a fair rate of return on money invested in the improvements, to cover repairs, insurance and interest, is ten per cent., or $1000. Then the other $1000 collected as rent should be confiscated for public use. To levy a tax of $1000 on this property at the rate of 2 per cent., it must be assessed

at $50,000, which, therefore, would be its assessed valuation. To provide against taxing land for rental not received, the assessment would be made for the year past and would be based on rentals actually received; or, in case of property occupied by owners, the assessment would be estimated upon its value considered relatively to other property in the vicinity. To provide against fraud in statement of rentals received by the owners, all rentals might be made payable to the municipal treasurer and a drawback given to the owner equal to the percentage allowed him on his investment in land improvements. In case of farm lands, the exemption for land improvements would be a certain price per acre, with an added exemption for buildings, fences, orchards, and other improvements. Finally, to encourage men to procure homes for themselves and families, a certain limited exemption from all taxation might be made as a homestead exemption.

Such a system of taxation would, doubtless, result in all landed property not homesteads becoming ultimately municipal, state, and government property, and all occupants, mere tenants with rights of occupancy as long as rentals are paid. It could discourage private ownership by placing heavy burdens of taxation on all land values above the value of land appendages, except on the homestead exemptions.

It will be objected that a system of taxation which confiscates all potential value in land would be revolutionary; that, admitting the first accumulation of potential values to be unjust, to confiscate such values in innocent purchasers' hands, as stolen goods are taken by the owner, though found in the hands of purchasers who bought them in good faith, would be unjust for several reasons, among which are the following: First, stealing is placed under the ban of the law, and all persons are given fair warning against buying stolen goods. On the other hand, landownership by individuals has been handed down to us from ancestors of many centuries ago, and has become an integral part of our civilization; the right of individuals to possession and control of land conveyed or devised to them has scarcely been questioned, except by a comparatively small number of discredited social reformers; and, finally, dealings in landed property have been generally regarded as honest, honorable, and beyond the suspicion of wrong as those in any other kind of property. These considerations would give landowners a standing in court, when arraigned at the bar of justice, and demand that they be not placed in the category of thieves and dishonest men. They would be rather in the position of men who have done no unlawful act, who are unconscious of having done their fellow citizens a wrong, but whose ownership has become unlawful by the enactment of new laws.

In reply it may be said that the same arguments, with almost if not quite equal force, were formerly made in defense of property in slaves. Yet the emancipation proclamation freed four million chattels, while the government has made no provision to reimburse the former owners for loss sustained by the liberation of their slaves. While this was done as a war measure, and time has softened the asperity of the wrong committed, that it was a wrong is none the less evident when the act is considered from principles of equity alone. The wiping out of one great evil does not justify a wrong committed by the same act, unless the committing of the wrong be a necessary concomitant of the destruction of the evil. And this is why the emancipation of the slaves can be justified only as a war measure — not that it was the best way which could have been devised, but the only way then found practicable, and that it was at the same time a most powerful means of preserving the Union. And there can be no doubt that a peaceable means of liberating the slaves could have been devised, had our statesmen been wiser, by which justice would have been done to all. War is nature's method of reforming us when we refuse to reform ourselves; it is a drastic remedy, but always efficient.

Admitting, as we must, that public ownership of land is the only ownership justified by a consideration of the natural rights of man, the great problem for reformers and statesmen to solve is how to confiscate the potential value of land and not take from landowners values rightfully owned, representing earned values. To effect so great a revolution with exact justice to all, would be, perhaps, impossible; but to destroy the potential value of land and compensate each owner approximately for his equity in land owned by him, would be a difficult, though not impossible, governmental or legislative problem. And while the limits of this work will not permit of a discussion in detail of the modes and means of effecting such a revolution, a suggestion as to the direction in which the solution may be sought will not be out of place in this chapter.

First, let a tax law be passed embodying the principle of so levying taxes on land values as to confiscate the rent of the land potential, or the potential value in land; either by the mode suggested in this chapter or by some other practical method of taxation. Then, at any time subsequently, in the option of the landholder, let him have the privilege of selling his holding to the general government and taking payment therefor, at a valuation fixed by a court created for the purpose, in government bonds bearing a rate of 1.82611 per cent.,[1] or some other low rate of interest. These bonds would be issued in denominations of one hundred dollars and multiples of one hundred, while the excess of valuation of any property beyond hundreds would be paid in current money,—that is, if the valuation be fixed at $2572.25, the $72.25 would be paid in cash, and $2500 in interest-bearing bonds.

In fixing the valuation of land which it is proposed to sell to the government, the court should have before it all the circumstances, present and past. It should know the present value of the land improvements; what they would now cost to produce; the present value of the rental; what it cost the owner, if purchased by him prior to the enactment of the law, or, if purchased by him subsequently, what was the price paid at the sale next previous to the enactment; whether the rental is now productive of

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[1] The rate paid by the government should not exceed 2 per cent., and should probably be lower. The rate above suggested is, doubtless, as high as should be paid, and it is very convenient in the computation of interest on bonds of $100 and its multiples. The year has 365.2422 days; and at a rate of 3.652422 per cent. interest, a hundred dollar bond would draw just a cent a day; likewise at the rate of 1.826211 per cent., a two hundred dollar bond would bear the same interest, from which interest on multiples of one hundred dollars is easily computed.

profit and increasing, or whether it be non-productive, estimated on improvements, and decreasing; and any other facts which might bear on the question of an equitable adjudication of the value due the owner.

The rule governing the court, in fixing the valuation of property not depreciating in rent-commanding power, would be to allow the owner the cost of the land potential actually paid, or, in case of property descending by inheritance or gift, the value of the potential at the time the title passed; also the value of the land improvements estimated on original cost, present cost to reproduce, or market value, the government taking a minimum, of the three methods of estimating the value of land improvements, as the purchase price. Thus each owner of land would be allowed the value actually his by purchase, inheritance, or gift, but no unearned increment of value accrued during his ownership.

In case of property depreciating in the value of its rental, and of property whose value is less than the original cost of its appendages or the present cost to produce them, a somewhat different rule would govern. While the observance of property rights demands that property justly owned by an individual shall not be taken without giving the owner a just compensation therefor, owners of depreciating and unproductive property could not reasonably expect the government to take bad investments off their hands, paying such investors their original cost, or the present cost, even, where the investment is so injudiciously made as not to yield a fair return. In determining the value of unproductive real estate, cost, both original and present, should be disregarded, and the purchase price should be based on its present and prospective productiveness. The nation could not purchase the property at so high a price that the interest on the price paid and the cost of maintenance would exceed the net rental received. In other words, the price paid must be fixed so low as to make the present and prospective income from the property cover the present and prospective outlay upon it. Property once passed to government control and ownership would be maintained at government expense, and subject to sale to individuals for homestead purposes only.

The suggestions above made are not put forward as the best method of transition from private to public ownership of land, but a mere outline of a possible one. The real method will be evolved when the masses of the people see the advantages of public over private ownership. Wise statesmanship will be able to effect the transition without great disturbance of existent industrial and social conditions.

In many respects the royalty commanded by patents and copyrights is like the rent of land. They both flow from potential value, which is quite dependent on exclusive ownership and control. Both increase in wealth-commanding power independently of the labor expended upon them, but proportional to urgency of desire and the number desiring their use. Both collect from society an unearned increment for the benefit of individuals who may be the fortunate possessors of the desired lands, patents, or copyrights. Consequently the evils flowing from royalty are the same, though in a lesser degree, as those flowing from rent.

Some have advocated the abolition of all patent and copyright laws as a remedy for the unearned increment of royalty; but one great difference between land and patents indicates a different remedy as the more expedient. Whether land be held in private or public ownership, the amount and usefulness of land is the same, since land is a gratuity of nature. It is far different with inventions, discoveries, and literary works. These are the products of mental labor, some of them true creations. And if the reward of such labor were taken away, or confiscated for public use, individuals would cease, or in a great degree relax their energy, to put forth great mental effort. Even if the government were to offer certain rewards for useful inventions, discoveries, literary works, and works of art, rewards could not be justly apportioned, since the public is always a better judge of what it wants and can make good use of than government officials could be. So great benefits have come from the stimulation of inventive genius by our patent laws, that their repeal would doubtless retard our progress in the march of civilization. Again, patent laws grant exclusive rights only for a term of years, after which, the invention, discovery, literary work, or work of art becomes public property; and in this respect the public is better protected than in case of private ownership of land, in which the right is granted in perpetuity.

It would therefore appear expedient to apply to potential wealth the methods of progressive and taxonomic taxation mentioned in Chapter V of this Book, rather than endanger our progress in civilization by from the repeal of all patent laws. Under the methods of taxation suggested patents and copyrights would escape taxation, as long as they afford but a moderate and reasonable compensation to their owners for services rendered to society. But when they become burdensome monopolies, taking large unearned increments of value from society, the power of taxation would fix their limit, compelling them to contribute more and more to the state as they grow greater in potential, or in their power to extort from society unearned increments of value.

In conclusion, it may be said that no kind of potential value has a better *raison d' être*, unless it may be that of money, than has the potential value of patents and copyrights. The evils, therefore, which can not be cured without the destruction of such values should be endured.

CHAPTER VIII.

INTEREST AND ITS REMEDY — DESPOLIATORY INCREMENT OF DEBT.

Economists of a certain school see in interest nothing but an unearned increment of value, holding it to be in itself wholly wrong. They would abolish borrowing and lending, except as fraternal acts for which no reward is to be expected or to be enforced by law. They believe that he who lives by usury performs no useful service to society, and is to be classed with landlords, who extort from society the unearned increment of the land potential in rent, and with the beneficiaries of other unearned increments. As to debts made in the course of business transactions, they would enforce the payment of the principal, but without interest. Other economists see in interest an element of usefulness, and would contend that the loaner of capital is as much entitled to reward as the tradesman, manufacturer, agriculturist, and laborer.

The object of this chapter will not require us to enter upon a discussion of the merits of these opposing views. It will suffice to say that controversialists on both sides of the question quite generally admit the evil influence of interest in aggravating the tendency to the concentration of wealth into the hands of the few. The remedies thus far put into practice have been mostly in the direction of usury laws, whose purpose is to limit the rate of interest which can be legally collected by the lender. All such laws have proved to be of doubtful efficacy, owing to the difficulty in their enforcement; self-protection being a powerful motive, in both borrower and lender, to the concealment of their violation of law.

The speculative tendency of men, growing out of the desire to get wealth for nothing, or with as little labor as possible,— the same that influences gamblers to play at games of chance, skill, or deception, to bet, to take chances on options, to invest in real estate, bonds, stocks, or commodities in which they think there is a prospect of a rise in value, giving them a valuable return without effort on their part,— leads them to overestimate their powers, and they agree to pay as interest a much higher rate for the use of wealth borrowed than any equitable profit in business would permit. Thus interest grows the more burdensome with the demands and necessities of borrowers. The few pass successfully between the Scylla of crime and the prison on the one side and the Charybdis of poverty and bankruptcy on the other, amassing great wealth; but the many are doomed to bankruptcy and poverty or the prison.

There does not seem to be any adequate remedy for the evils of interest, but to destroy the liability to pay interest as between individuals. This would result in reducing debts between individuals to a minimum. For men would not generally loan money or property of any kind without hope of reward; and debts between individuals would be confined to short-time mercantile credits and loans made from sentiments of brotherly love and friendship. To abolish interest between individuals would compel the owners

of wealth to make use of it for the benefit of society and themselves, or consume it, and thus, in time, be reduced from the condition of non-producing consumers to that of producing consumers.

But the evils which men suffer through inequitable distribution as interest may be remedied without entirely abolishing debt and interest. Debt, if not too burdensome, is an incentive to greater energy on the part of the debtor; and if men, ambitious to better their condition, and with faith in their own powers of achievement, wish to borrow for investment in business, manufacture, or agriculture, they should be permitted to do so. But, as a protection to debtors, all loaning and banking business should be conducted by the general government, the object of which should be to loan funds to citizens at a low rate, slightly above cost of maintaining the department of loans — say at two and one half per cent. or lower. In any case the rate should not be so high as to absorb the profits of business. And a very low rate could be made, were the government to take only safe security on property, loaning an amount considerably less than the present and prospective value of the property held as security.

Various estimates of the total indebtedness of the United States, public, corporate, and private, have been made, from twenty to forty billions of dollars. A fair estimate would, doubtless, be thirty billions. This indebtedness bears an average rate of not less than five per cent., and six per cent. would probably be nearer the average. At five per cent. the tax levied upon the debtors of the country each year is fifteen hundred millions of dollars. At two and one-half per cent. a saving of seven hundred and fifty millions would be made to these producing debtors; and the other seven hundred and fifty millions, if paid into the treasury of the general government, would cover the annual expenditures of the nation, and leave a surplus each year of two hundred and fifty millions — certainly not a bad thing for the producing debtors, nor the tax payers, though some people, the absorbers of interest, would be deprived of their means of subsistence without useful labor. Banking and money loaning are generally regarded as honest and honorable as most other kinds of business; and they are, without doubt, necessary under our present social and industrial organization; but the general welfare of society demands their destruction as employments of individuals and private corporations for gain. Men engaged in banking and loaning business have repeatedly made objections to the government's having anything to do with the banking business, or to its issuing the necessary currency, even, which the people require for effecting their exchanges. But the objections are made so obviously from selfish motives, and their arguments so utterly without validity, that space can not be devoted to their discussion in this work. The only objection which is worthy of mention here is that a law abolishing interest as an obligation of debtor to private creditor would interfere with the right of private contract. But there are many contracts which our courts now refuse to enforce on the ground of their being against public policy; and this would be the sufficient reason why the courts and legislatures should refuse to enforce a contract to pay interest, except to the supreme person, the state.

The evils growing out of the increment of debt have been before sufficiently explained. With government ownership of land, government ownership and operation of the great industries of general and national importance, and with the general government the sole banker empowered to collect interest on wealth loaned, the major portion of the evils now flowing from increments and decrements of debt would no longer appear. But, in so far as indebtedness were to exist between individuals and from individual to government and government to individual, increments and decrements of debt would effect an inequitable distribution of wealth.

As has been before shown, the increment of debt is due solely to the fluctuation in buying power of the legal unit of account. The remedy, therefore, is in establishing an invariable unit for measuring values. The various systems of money have been discussed in Books II and III, and from what has preceded it appears that there are two ways of making an invariable measure: the one is the government regulation of the volume of money so that the legal unit of account shall be invariable in its buying power, or command over commodities; and the other, a corrective system by which additions or subtractions are made from the debt at the time of its maturity in proportion as the legal unit has declined or advanced in buying power. Either of these systems would be a perfect remedy for the increment of debt. The establishment of bimetallism would be a great step in the direction of government control of money, but it would have to be supplemented by other legislation to establish complete governmental control of the volume of money.

The engrafting of a system of correctionism upon our present gold standard would be a great improvement over the present system; but it would undoubtedly require a much longer period of time to establish such a system, for the reason that the masses of people are quite unfamiliar with it, and they would not see its merits so readily as those of a bimetallic system of money.

In conclusion, it may be said, that monetary reform will be most easily effected of any thus far mentioned, and it will probably be our next step in the evolution of society. It will not be so far removed from present conditions, will not make so great changes in the conditions of men, and will not require so radical changes in the machinery of government and society in order to adapt people to changed conditions, as would some others to which reference has been made. While the step in the direction of monetary reform would not possibly be a great one toward the perfection of society and the state, it would prepare the way for another to be made, that to another, and so on until we approximate the perfection of organization in which inequitable distribution of wealth will be unknown.

CHAPTER IX.

INCREMENTS OF SPECULATIVE VALUE AND THEIR REMEDIES—SPOLIATION BY WAR, GAMBLING, AND CRIME.

What has been termed spoliation by increment of speculative value is confined mostly to the manipulation of stocks of various corporations of a public or semipublic character, and to the manipulation of the prices of food products and other staple commodities. If, therefore, the great steam and electric railways, street railways, water transportation companies, telegraphs and telephones, mines of coal and the precious and useful metals, and other industrial institutions of a semipublic character, were nationalized, by making them public institutions altogether, the great opportunities for speculation would be taken away. Again, if by the application of progressive, taxonomic, and inheritance tax laws the tendency to the amassing of great fortunes be arrested, and the present multimillionaire fortunes be caused to shrink to reasonable proportions, it is doubtful whether any specific remedy would be required to check the evil of speculation. If the making of a good living by labor be made easier and that by speculation harder, the effort of men will select the line of least resistance, and all men will learn that their own, as well as the general welfare, lies in the direction of honest labor, physical or mental, for an honest reward.

But there are remedies which may be applied directly to speculation; and they will be valuable checks to the inequitable distribution of wealth, pending the accomplishment of other reforms.

First, laws should be enacted whose object it would be, enforced by appropriate penalties, to confine business operations of purchase and sale to actual transactions, or exchange of money and goods, and to eliminate from the business world, as far as possible, dealings in "futures," or "options," where the parties to the transaction do not buy and sell with the expectation that the goods will be delivered, but settle with each other by putting up "margins." It is doubtless just that individuals have the right of purchase and sale for future delivery, and it is difficult to see how business between individuals could be transacted without holding such contracts good and enforcible. It would, furthermore, be difficult, in many cases, for a court to decide what is a bona fide contract of purchase and sale, and what a mere bet on the future price. But were the seal of public condemnation to be placed on the gambling operations of boards of trade by the enactment of laws against such operations, the moral force would be great, whether or not they could be strictly enforced. Even if the courts were to refuse to enforce contracts obviously speculative, on the ground of their being against public policy, speculation would in time come into disrepute and be abandoned.

Again, were the evil of speculation — manipulating the markets by the process of "cornering and flooding" — to be found so great as to require a more potent remedy than adverse legislation, the government might take part in buying and selling staple food products and textile fibers. By a policy of buying when the market is on the downward trend and selling when the movement of prices is upward, the power of individuals to control the markets would be broken. It is doubtful, however, whether it will ever become necessary to put such a remedy into practice.

As to the evils of war, gambling, and crime, governments are now doing all that can be expected to come directly through legislation and international treaties. The moral force of all civilized nations is against war. And, when war is declared between nations, neutrality laws and agreements of non-combatants serve to localize the evil, preventing its spread to other nations. The national duel is then fought until "honor is satisfied," when peace is again restored. Nations are becoming more and more reluctant to submit their disputes to the arbitrament of the sword. Likewise, in the management of their internal affairs, the laws against the offenses classed as gambling and crime, in the various civilized states, are becoming more and more restrictive. Lotteries, which were formerly legitimate enterprises in all the States of the Union, are now placed under the ban of the law in all. So with betting and other forms of gambling formerly thought to be honorable and legitimate. A stricter execution of the laws against crime now accompany a more humane treatment of criminals; and thus the law is making progress toward the enforcement of the principle of a universal brotherhood of mankind.

But the most efficient remedy for these evils is to be found in the betterment of the condition of the great masses of the people. Intestine wars, riots, and crimes generally, grow out of popular discontent; and discontent is most prevalent and wide-spread when vast wealth and extreme poverty are found side by side. The nearer to equality men are in social and industrial condition and privilege, the more contented and happy they are. And though an absolute equality in condition is not possible nor desirable with the retention of the principle of competition and the reward of labor in proportion to the service done, yet the moderation of the extremes of wealth and poverty by the enforcement of an equitable distribution of wealth would remove the greater portion of the discontent which is now found in the industrial classes of society. A careful study of the causes of poverty, insanity, and crime must convince any unbiased mind that the adjustment of the means of distribution so as to enforce an equitable distribution of wealth would be the best and surest way to empty our almshouses, insane-asylums, jails, and prisons.

CHAPTER X.

CONCLUSION.

The remedies proposed in the preceding chapters are not put forward in any dogmatic manner; they are still largely to be tried in the crucible of experience. As a part and parcel of the social mechanism, they are, like a complicated machine as it first takes form in the inventor's brain, now to be seen only in vague outline; the detail is still to be worked out in the application. We attribute the invention of the locomotive to Stevenson, and the steamboat to Fulton; yet these inventors, were they to arise from their graves as from a Rip Van Winkle sleep, would be struck with inexpressible wonder and admiration at the perfection and complicated detail of the modern locomotive and battle-ship. These wonderful machines, like hundreds of others which might be mentioned, are not singly the invention of one man, but each machine is itself an evolution — the product of many minds successively, each inventor having the benefit of the inventive genius and experience that have preceded. The modern state is not the less an evolution, a machine now highly complicated, and which must rapidly become more so. In the adaptation of means to end, it is, compared to what it must become, as the crude invention of the first locomotive or steamboat to the modern perfected machine.

The advocates of individualism will object to the reforms proposed in this book as paternal and socialistic. And to this charge it must be confessed they are paternal and socialistic; but the progress of all civilization has been a succession of steps toward socialism. And the socialists will undoubtedly object that the reforms do not go far enough. The extreme school would destroy the system of competitive labor and let the state assume the control of all industry. But a comprehensive view of the history of man's advancement from a condition little above the brute creation to his present high state, and an investigation into the causes of his advancement must lead to the conclusion that antagonism, or competition, has been an indispensable factor in all progress. Nor can competition be entirely done away, until the selfish motives in man are entirely subordinated to the altruistic motives. And then, even, antagonism, or opposition, must come from some source — from inanimate nature if from no other — or all progress will cease.

While, therefore, the movement of all progress is toward state socialism — and this is the ultimate goal of all progress — it seems inevitable that attempts now made to abolish competition and place all industry under state control must temporarily fail; not because socialism is intrinsically wrong or impractical, but because it is not adapted, as a system of social and political economy, to man's present state of development. And these considerations should temper men's minds, in the advocacy of reforms, to attempt in practice such only as seem ripe for adoption, by the responsive echo which they find in the popular mind.

The present tendency of reform movements seems

to be in the direction of perfecting the money system; then, in an order of importance and precedence which can not with certainty be stated, to the enactment of laws imposing progressive taxes on incomes and inheritances, to the destruction of the potential value in land, and to the adoption by governments, as systems of legislation, of the initiative, the referendum, and proportional representation. These reforms can not all be adopted at once, and it is uncertain which will first find popular favor; but they must all, in time, without doubt, be incorporated in our political and industrial systems. Meanwhile, the preparation for a progressive reform can be made only through a wide diffusion of knowledge as to the workings and faults of present systems of government and industry. An evil can not be remedied until it is recognized as an evil by the power whose function and prerogative it is to provide a remedy.

The present tendency toward socialism and "centralism," as it has been called, is deplored by men whose education and training have been in the direction of individualism. They condemn such tendencies on the ground that the "centralization of power" must be accompanied by the loss of liberty, by the masses of the people, in proportion as the power of the central movement is increased.

This argument might have been good a few centuries ago, before the general diffusion of learning, and when personal and property rights of the individual were but poorly protected by the law and the moral force of popular opinion. But, in the modern state, the highest official is as amenable to the law as the humblest citizen; he is but one of the more prominent parts of the machinery of state, and can not usurp functions not his by law. Usurpation means death politically, perhaps physically, to the usurper. And with the perfection of the machinery of state, officials will become more and more shorn of individual power, and become simply the means of enforcing the popular will — public servants *de facto* as well as in name.

Finally, let it be said to the student of these pages: Condemn no proposed reform hastily, as a "craze" unworthy of consideration; for it must have been suggested by an evil actually existing. And while the proposed reform may not be the best remedy which can be devised, or any adequate remedy, indeed, it is the duty of every citizen of the state to analyze and investigate the institutions which it seeks to change, in all their bearings upon human welfare, to discover the root of the evil, and devise, if possible, a better and more practical remedy.

SYNOPSIS OF BOOK V — APPLIED ECONOMICS.

APPLIED ECONOMICS

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III. Socialism — Historical Sketch — Its Merits as a Remedy
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V. Other Proposed Remedies through Taxation
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    5. Tax on Consumption — Closing Remark
VI. Monopoly Profits and Pauperized Labor
VII. Unearned Increments of Rent and Royalty
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